



Industrial Hoses

Catalogue





ENGINEERING YOUR SUCCESS.





Detailed table of Contents

Alphabetical Index	IV
Index by Application	V
Partnumber Index	VI
Promotional pages	
Global hose	13
Silicone Hose	14
E-Z Form	14
Barrier Hose	15
POLIAX range	15
GAMBRINUS range	16
Low Temperature Hose	17
Technical Handbook	
Hose Selection Matrix	TH4
Hose Part Number Description	TH8
Parker Safety Guide	TH37
Hose Technical Specification	
🕄 Oil & Fuel	Α
Q Automotive	В
Gas	C
😂 Water	D
😓 Hot Water & Steam	E
Acid & Chemicals	F
🛞 Material Handling	G
Beverage & Food	Н
🔂 Multipurpose & Air	1

We reserve the right to modify whenever necessary the features and specifications of the products included in this publication without prior notice.



Alphabetical Index

Α		Page
9	AIRBRAKE DIN 74310	B8
Θ	APERFRUT 20	114
Θ	APERFRUT 40	114
Θ	APERFRUT 80	114
Ð	APERSPIR	H10
•	ASPIREX	G8
Ø	AUTOGENE EN ISO 3821 NR/L - NB/L 20	C4
в		Page
6	BETON 80	G6
9	BEVERA 10	D7
С		Page
Ø	CARBO G NW/L 10 - NB/R 10	C6
9)	CARBOBLUE N/L 10	B12
9	CARBOBLUE N/L 20	B12
0	CARBOCORD EN 12115	A6
0	CARBOPRESS N/L 10	A4
0	CARBOPRESS N/L 20	A4
0	CARBURITE 10	A5
6	CERGOM	G7
0	CERVINO EN 12115	A8
9	CHEMIOEL EN 12115	A7
D		Page
Ø	DRINKPRESS WB/L 10	H4
Е		Page
Ø	ENOREX	H11
9	E-Z FORM™ GS	B5
0	E-Z FORM™ HT	A9
Θ	E-Z FORM™ MP	112
F		Page
9	FUCINO 20	D4
G		Page
Ø	GAMBRINUS BLUE 10	H6
Ø	GAMBRINUS BLUE SM 10	H7
Ø	GAMBRINUS RED SM 10	H8
Ø	GAMBRINUS UPE SM EN12115	H5
Θ	GST II BLACK 15	14
-	GST II BLACK 20	16
Θ	GST II RED 15	15

L		Page
9	IDRO 10	D6
\$	INTONACATRICI 40	G5
J		Page
Θ	JUMBO N/L	110
L		Page
•	LIBECCIO EN ISO 3861	G4
м		Page
Θ	MINIERA 20 MSHA	11
8	MULTIREX	D8
		_
0		Page
0	OILPRESS N/L 20	113
Θ	OILPRESS N/L 30	113
Ρ		Page
6	POLIAX D EN 12115	F4
6	POLIAX D SM EN 12115	F5
0	POLIAX F EN 12115	F8
6	POLIAX PHARMA	F9
6	POLIAX UPE CON SM EN 12115	F6
6	POLIAX UPE CON SM EN 12115 OND	F7
9	PRESCORD N/R 10	D5
0	PROPANPRESS EN ISO 3821 NA/L 20	C5
Θ	PYTHON N/L 20	17
Θ	PYTHON NV/L 20	18
Θ	PYTHON NY/L 30	19
R		Pag
9	RADIOR 10	B4
٩	RADIOR 3 (COIL)	E4
٩	RADIOR 3 (CUT LENGTH)	E5
٩	RADIOR DIN 6	B6
٩	RADIOR K 1003	E6
s		Page
9	SERIES 395 SAE J 30R7	B9
(?)	SERIES 6722	B7
.	SM/TR 311	B14
(?)		B16
<u>()</u>	SUPER-FLEX® FL-7	B15
		2.0

Э	Т		Page
		TBE	B11
		TBSE	B10
e	٩	THERMOPRESS 10	E7
	v		Page
	٩	VIGOR 2 EN ISO 6134 TYPE 2/A	E8
5	٩	VIGOR 2 NR EN ISO 6134 TYPE 2/A	E8
	Ð	VINITRESS	H9
e	w		Page
	۲	WAVEMASTER™	B13



Index by Application

Page A4 A4 A5 A6 A7 A8 A9

A	– Oil & Fuel
0	CARBOPRESS N/L 10
0	CARBOPRESS N/L 20
0	CARBURITE 10
0	CARBOCORD EN 12115
0	CHEMIOEL EN 12115
0	CERVINO EN 12115
0	E-Z FORM™ HT

В	- Automotive & Boat	Page
9	RADIOR 10	B4
9	E-Z FORM™ GS	B5
9	RADIOR DIN 6	B6
9	SERIES 6722	B7
9	AIRBRAKE DIN 74310	B8
9	SERIES 395 SAE J 30R7	B9
9	TBSE	B10
9	TBE	B11
(?)	CARBOBLUE N/L 10	B12
9	CARBOBLUE N/L 20	B12
9	WAVEMASTER™	B13
9	SM/TR 311	B14
9	SUPER-FLEX® FL-7	B15
9	SUPER-FLEX® FL	B16

C – Gas	Page
AUTOGENE EN ISO 3821 NR/L - NB/L 20	C4
PROPANPRESS EN ISO 3821 NA/L 20	C5
CARBO G NW/L 10 - NB/R 10	C6

D	– Water	Page
9	FUCINO 20	D4
9	PRESCORD N/R 10	D5
9	IDRO 10	D6
9	BEVERA 10	D7
9	MULTIREX	D8

E – Hot Water & Steam	Page
RADIOR 3	E4 E5
BADIOR K 1003	E6
THERMOPRESS 10	E7
UIGOR 2 EN ISO 6134 TYPE 2/A	E8
UIGOR 2 NR EN ISO 6134 TYPE 2/A	E8

- Acid & Chemicals	Page
POLIAX D EN 12115	F4
POLIAX D SM EN 12115	F5
POLIAX UPE CON SM EN 12115	F6
POLIAX UPE CON SM EN 12115 OND	F7
POLIAX F EN 12115	F8
POLIAX PHARMA	F9
	POLIAX D EN 12115 POLIAX D SM EN 12115 POLIAX UPE CON SM EN 12115 POLIAX UPE CON SM EN 12115 OND POLIAX F EN 12115

G	 Material Handling
8	LIBECCIO EN ISO 3861
•	INTONACATRICI 40
8	BETON 80
۲	CERGOM
0	ASPIREX

Page	H	- Beverage & Food	Page
G4	Ø	DRINKPRESS WB/L 10	H4
G5	Ø	GAMBRINUS UPE SM EN12115	H5
G6	Ø	GAMBRINUS BLUE 10	H6
G7	Ø	GAMBRINUS BLUE SM 10	H7
G8	Ø	GAMBRINUS RED SM 10	H8
	Ø	VINITRESS	H9
	7	APERSPIR	H10
	Ø	ENOREX	H11

e	1-	- Multipurpose & Air	Page
	Θ	GST II BLACK 15	14
	Θ	GST II RED 15	15
	Θ	GST II BLACK 20	16
	Θ	PYTHON N/L 20	17
	Θ	PYTHON NV/L 20	18
	Θ	PYTHON NY/L 30	19
	Θ	JUMBO N/L	110
	Θ	MINIERA 20 MSHA	111
	Θ	E-Z FORM™ MP	112
	Θ	OILPRESS N/L 20	113
	Θ	OILPRESS N/L 30	113
	Θ	APERFRUT 20	114
	Θ	APERFRUT 40	114
	Θ	APERFRUT 80	114



Partnumber Index

Partnumbeı (IH+6 digits)	Hose	page
H110013	Этве	B11
1301121	PRESCORD N/R 10	D5
H301140	RADIOR 10	B4
H301160	PRESCORD N/R 10	D5
H301165	😏 JUMBO N/L	l10
H302400	DRINKPRESS WB/L 10	H4
H303151	AIRBRAKE DIN 74310	B8
	PYTHON N/L 20	17
H303512	PYTHON NV/L 20	18
	PYTHON NY/L 30	19
H304127	AUTOGENE EN ISO 3821 NR/L - NB/L 20	C4
IH304128	AUTOGENE EN ISO 3821 NR/L - NB/L 20	C4
IH304129	AUTOGENE EN ISO 3821 NR/L - NB/L 20	C4
H304132	AUTOGENE EN ISO 3821 NR/L - NB/L 20	C4
H304134	PROPANPRESS EN ISO 3821 NA/L 20	C5
IH305010	CARBOPRESS N/L 10 - 20	A4
H305020	🔁 CARBOPRESS N/L 10 - 20	A4
H305110	CARBOPRESS N/L 10 - 20	A4
H305120	CARBOPRESS N/L 10 - 20	A4
H305150	CARBOBLUE N/L 10 - 20	B12
H305515	CARBO G NW/L 10 – NB/R 10	C6
H305516	CARBO G NW/L 10 – NB/R 10	C6
H308313	B RADIOR K 1003	E6
H308320	OILPRESS N/L 20 - 30	l13
H308361	RADIOR DIN 6	B6
H308710	TBSE	B10
395	SERIES 395 SAE J 30R7	B9
H350332		H9
H350400	APERFRUT 20 - 40 - 80	114
H350401	APERFRUT 20 - 40 - 80	114
H350402	APERFRUT 20 - 40 - 80	114
IH355600	laspirex	G8
H355601		G8
H355602		G8
H355620	ASPIREX	G8
H355621	🚱 ASPIREX	G8
H356000		D8
IH356001		D8
IH356020		D8
IH356021		D8
IH356200	ENOREX	H11

Partnumber (IH+6 digits)	Hos	se	page
IH356201	Ø	ENOREX	H11
IH356410	Ð	APERSPIR	H10
IH356411	Ø	APERSPIR	H10
IH362030	9	IDRO 10	D6
IH362031	9	IDRO 10	D6
IH362032	9	FUCINO 20	D4
IH362110	9	BEVERA 10	D7
IH362140	9	BEVERA 10	D7
IH362423	Ø	GAMBRINUS UPE SM EN12115	H5
IH362424	Ø	GAMBRINUS BLUE 10	H6
11302424	Ø	GAMBRINUS BLUE SM 10	H7
IH362425	Ø	GAMBRINUS RED SM 10	H8
IH363421	Θ	MINIERA 20 MSHA	111
	Θ	PYTHON N/L 20	17
IH363512	Θ	PYTHON NV/L 20	18
	Θ	PYTHON NY/L 30	19
IH365223	0	CARBOCORD EN 12115	A6
IH365300	0	CARBURITE 10	A5
IH365302	0	CARBURITE 10	A5
11000002	0	CHEMIOEL EN 12115	A7
IH365304	0	CERVINO EN 12115	A8
IH365310	0	CARBURITE 10	A5
IH368000	٩	THERMOPRESS 10	E7
IH368017	9	VIGOR 2 NR EN ISO 6134 TYPE 2/A	E8
IH368101	0	POLIAX D EN 12115	F4
	0	POLIAX D SM EN 12115	F5
	0	POLIAX F EN 12115	F8
IH368115	0	POLIAX PHARMA	F9
	0	POLIAX UPE CON SM EN 12115	F6
	0	POLIAX UPE CON SM EN 12115 OND	F7
IH368202	•	LIBECCIO EN ISO 3861	G4
IH368203	0	LIBECCIO EN ISO 3861	G4
IH368220	۲	INTONACATRICI 40	G5
IH368270	9	BEVERA 10	D7
IH368290	•	CERGOM	G7
IH368300	٩	RADIOR 3 (COIL)	E4
	٩	RADIOR 3 (CUT LENGTH)	E5
IH368301	•	RADIOR 3 (COIL)	E4
IH368310	٩	RADIOR 3 (COIL)	E4
	٩	RADIOR 3 (CUT LENGTH)	E5
IH368361	9	RADIOR DIN 6	B6



Partnumber (IH+6 digits)	Hose	page
IH369710	SM/TR 311	B14
389	SUPER-FLEX® FL-7	B15
397	🚱 SUPER-FLEX® FL	B16
6722	SERIES 6722	B7
IH7092	🚱 GST II RED 15	15
IH7093	GST II BLACK 15	14
107093	🚱 GST II BLACK 20	16
7165	WAVEMASTER™	B13
IH7219	ເອ E-Z FORM™ MP	l12
IH7395		B5
7399	E-Z FORM™ HT	A9

Service – Helpdesk

An expert team of sales and customer service specialists are at your disposal, assuring proficient support and appropriate problem solving resources. Parker provides personal sales and technical support through local branch sales representatives as well as regional industrial hose sales specialists, product sales managers and engineers. We care about your business and seek to develop a close relationship with you.





PARKER HANNIFIN – THE GLOBAL LEADER AND YOUR PARTNER

Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems, providing precision-engineered solutions for a wide variety of mobile, industrial and aerospace markets. Our products are vital to virtually everything that moves or requires control, including the manufacture and processing of raw materials, durable goods, infrastructure development and all forms of transport.

Our engineering expertise spans the core motion and control technologies – electromechanical, hydraulic and pneumatic – as well as a full complement of fluid control systems; software and electronic controls; filtration systems; and refrigeration, instrumentation and sealing technologies.

Dry Technology

The leader in "dry technology" for the fluid power industry, Parker's Fluid Connectors Group is your single source for high-quality tube fittings, hose and hose fittings, thermoplastic tubing, brass fittings and valves, quickdisconnect couplings and assembly tools.

Markets

The Fluid Connectors Group serves customers in a broad range of markets, including Aerial Lift, Agriculture, Bulk Chemical Handling, Construction Machinery, Food & Beverage, Fuel & Gas Delivery, Industrial Machinery, Medical, Mining, Mobile, Oil & Gas and Transportation.

Customer Services

Products are available for shipment 24 hours a day, supported by 50 manufacturing facilities throughout the world and a global distribution network. Our commitment to you is impeccable customer service. To meet your specific requirements, we offer a broad range of programs designed to reduce your overall operating costs, streamline manufacturing, improve productivity, manage inventory, enhance delivery and address safety and environmental issues. For value-added services that generate value-added solutions, team up with Parker!

hymatik

PARKER HANNIFIN – OPPORTUNITY THROUGH INNOVATION IN THE WORLD'S MOST DEMANDING MARKETS



Worldwide availability

With more than 55,000 employees serving our valued customers in almost 50 countries, Parker is literally everywhere you need us to be. By working with us, you have access to an integrated network of 336 manufacturing plants, as well as 13,200 distributors and MRO outlets, and over 2,200 ParkerStores[™]. That's the kind of global network for global businesses demand.

Flexibility

As the world's motion control expert, Parker offers you a complete range of proven, off-the-shelf products. These products deliver exceptional quality and durability, reducing costs and advancing performance.

Innovation

It's what drives us. Our mandate for continuous improvement leads us to partner with our customers to create solutions that are smaller, lighter, sustainable, more energy efficient, and highly reliable.

9



Hose Products Division Europe -

Performing solutions for every market and application wherever they are

Parker industrial hose products are the preferred choice across diverse applications, industries and markets. Whether the need is for durable rubber, lightweight and flexible composite, abrasion resistant PVC or extreme temperature silicone hose, Parker has the right hose for your job. We offer a wide variety of hose construction options, materials and performance criteria.

Parker hoses are designed, built and supplied globally for longlasting performance and superior value, and have earned a reputation for excellence in agriculture, construction, petrochemical, transportation and many other markets.

We supply a variety of hoses suitable for multiple media: standard hoses for traditional service as well as heavy duty hoses that provide superior reistance to abra-



sion, oils, chemicals, heat, flame and cold. We have the ability and expertise to safetly handle either hazardous media in hars environment and valuable and delicate media in protected environment. From design, development and production to stocked inventory and shipment; we apply our know how and passion to provide our customers with solid and efficacious solutions.

Our History of Experience

With our history of success and reputation as a world-class manufacturer of flexible rubber hose, we continue to pursue and develop technologies offering the best solution for every application. Recent activities includes: Pelican hose assembly for bunkering application in ports and docks, introduction of innovative products such as ultra-flexible E-Z Form hose, development of the breakthrough technology such as extremely abrasion resistant

CERGOM material handling hose, and special application hoses Carboblue. The latter hoses are environmentaly friendly, providing the required high grade of cleanliness for the SRC technology reducing NOx emission. Our success stories include a number of global OEMs and distributors across many diverse industries. We contribute to short-and longterm customer profitability by maximizing value through premier product quality and service.



Capabilities

Our manufacturing process is supported by a highly qualified and experienced engineering staff and efficient production equipment. Deployment of these resources ensures precision control of the manufacturing process and materials, as well as the ability to create new design idea and implement solution. Now we have introduced into our range new materials such as silicone and PTFE to further meet customers' expectations and be more active in the industrial and chemical market segments.

Production line	ID min (mm)	ID max (mm)
Long Length	3	38
Mandrel Made	13	200
PVC	5	300
Thermoplastic	5	75
Silicone	13	51
Custom Made	51	610

Quality

Parker is a company which operates in compliance with the quality system laid down by the UNI EN ISO 9001 and 14001 standard, certified by Bureau Veritas. More and more Parker industrial hoses are certified by the main international certification bodies.



Ecology



Caring for and ensuring the sustainability of the planet is our intention; we therefore develop and improve hoses for alternative fuels like gas, natural oils, ester oils etc. for environmentallyfriendly technologies such as the new SCR one.

Parker developed nitrosaminefree compounds to improve the quality of life and of the environment. We are doing more for our customers than ever before. Globally, we have localized service to provide fast, hassle-free responses and on-site support.

We're staying close to our customers and integrating systems to help them become more profitable. We are committed to delivering our highly engineered products on-time, on-promise.



Compounds

Our R&D team invests significant resources in the development of new and improved rubber compounds. The recipes are formulated according to the final application of the hose, guaranteeing the utmost performance of the inner tube and cover. An efficient technical center makes it

possible to test and study the properties and behavior of different ingredients in order to identify and solve possible critical problems. All aspects of compounds development and production – from design to testing to manufacturing – are constantly in compliance with main relevant international standards. Modern testing equipment al-

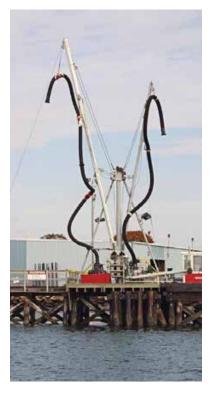
lows us to check the product during any stage of the process.

Oil & Fuel Hose Pelican EN 1765 type S15

Pelican Hose is specially designed for bunkering operations. It is the activity for the loading, discharging and transferring of fuels between a bunker barge, a marine terminal or a marine facility from/ to a receiving ship. Bunkering operations needs to be performed diligently, safely with all necessary measures in place to prevent fuel spillage into the waters of the Port or onto the quayside. It is thus fundamental to have solid and reliable components aligned with the international industry standards. Pelican is recommended in

combination with Parker large bore crimped fittings range specifically designed for its structure and sold in customized length assemblies. Please contact our Customer Service Helpdesk in your local Parker location.

Supplied and tested with end crimped fittings enables a significant time reduction compared to traditional solution with vulcanized couplings optimizing the operability of end user. Parker Pelican hose assemblies are available conductive or discontinuous based on the individual application.





Material Handling Transfer Hose – CERGOM

CERGOM is manufactured and patented based on a unique hose technology for pneumatic delivery and vacuum conveying systems of abrasive materials.

The hose is constructed in a combination of a new tube material with ceramic hexagonal plates. With the added benefit of the ultra high abrasion resistance, the hose has an increased service life in comparison to elastomer hoses qualities and rigid tubes and therefore the maintenance cost and machine shut downs will be reduced to a minimum. Together with the respective fitting range (swivel flanges) CERGOM is ideal for tough environments such as steelworks, thermoelectric power plants, cement works, mining industry etc. CERGOM hose assemblies are very flexible in use with different working conditions and easier to handle than rigid elbows. Based on its construction, CERGOM hose assemblies minimize significantly the vibration and noise during operation solving the toughest challengies for abrasive material handling.

Global Hose

Same hose, same performance, same features, same availability everywhere



Our Global Hose Program consists of a worldwide network of Parker manufacturing facilities and distribution centers that assure consistent Parker quality while providing the flexibility to satisfy peaks of customer demand. The synergy among Industrial hose divisions around the world is one of our primary strength and an value-added support for our customers. Parker global hoses are suitable for OEMs and MRO channels, for diverse application across multiple industries and markets.

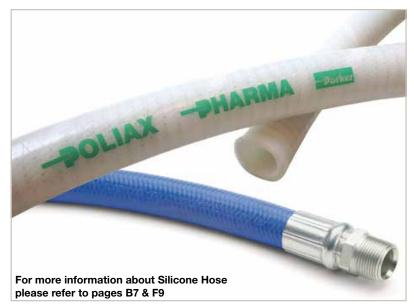


Silicone Hose

Silicone rubber hose is the ultimate choice for those extreme-temperature application.

Silicone has a number of chemical and mechanical and offers benefits for designers and users such as: improved performance over the long haul; flexibility while retaining their shape for installation in tight envelopes or around obstructions; low permeation to reduce or eliminate emissions, odors. Last but not least, it can be truly sterilized to ensure purity of products being manufactured or processed.

We offer solution either for cooling in industrial or transportation application (series 6722) and in the food, pharmaceutical and chemical industry (series Poliax Pharma)



GAMBRINUS range

Rubber and PVC hose range specifically designed for food & beverage industry to efficiently and safely convey all foodstuff while preserving products features and consumer health.



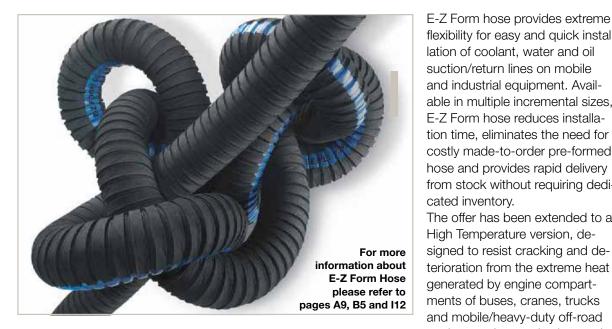
For more information about the new GAMBRINUS range please refer to pages H5 - H8

The program includes specific alimentary hoses to withstand and preserve different typologies of foodstuff during the collecting, transport and processing phases. Produced on dedicated lines using stainless steel mandrels, our compounds are resistant to cleaning and sterilization to guarantee utmost hygienic standard. Each GAMBRINUS line is designed to fit specific products features. The appropriate manufacturing and performance standards are certified by compliance with main European and International norms and specs such as EC 1935, BfR XXI, FDA. We also offer Stainless Steel Fittings capabilities – with permanently crimping ferrule or safety/bolt clamps – providing solutions to the most demanding applications in process plants. Our offering is supplemented with PVC hoses that offer an alternative to rubber where lighter weight is preferred.



E-Z Form Hose

Kink-free E-Z Form[™] Hose Eliminates the Need for Pre-formed Hose



flexibility for easy and quick installation of coolant, water and oil suction/return lines on mobile and industrial equipment. Available in multiple incremental sizes, E-Z Form hose reduces installation time, eliminates the need for costly made-to-order pre-formed hose and provides rapid delivery from stock without requiring dedicated inventory.

The offer has been extended to a High Temperature version, designed to resist cracking and deterioration from the extreme heat generated by engine compartments of buses, cranes, trucks and mobile/heavy-duty off-road equipment. It may also be used in non-SAE power steering return line applications.

Barrier Hose

Fuel, Vapor and Coolant/Heater Hoses

Parker offers a package of durable, flexible and lightweight hoses to handle virtually every enginerelated requirement, including fuel supply, vapor emission and cooling. These can be used in multiple market segments such as agriculture, off-roads, marine and transportation. They are designed to comply with the main international standards (ISO, SAE) and offer a superior low permeability rate for a higher protection of components and users. Compatible with biodiesel, diesel, ethanol and gasoline.





POLIAX range

Hoses manufactured with state-of-the-art compounds according to European standards to transfer chemicals, corrosive products and additives in mobile or fixed installations.

Extreme chemical transfer applications do not scare us; on the contrary it is part of our mission and a commitment. Our Poliax product line inhibits the contamination of the environment and guarantees the integrity of the media conveyed. The hose meets or exceeds EN 12115 specifications. We have multiple construction typologies to suits as many needs as possible and the range has been extended to new materials silicone and PTFE to withstand higher temperatures and aggressive fluid concentration.

The corrugated version offers additional flexibility and it is easy to handle in case of routing constraints or manual operations. Due to many different media combinations of acids, solvents, alkalis - and aninfinite variety of possible combinations - we recommend to utilize the STAMP approach and always consult our chemical compatibility chart to select the most appropriate hose. If there are any doubts or question, contact a Parker engineer.

> For more information about the POLIAX range please refer to chapter F (Acid & Chemicals)



Industrial Hose Fittings

Your industrial application requires quality fittings that meet regulatory standards and outperform your expectations. Parker is up for the challenge with a variety of fittings with different end-configurations and geometry to meet all of your application needs.

We have tested and approved all offered fitting series for your application to enhance reliability and performance.

You can rely on Parker fitting series one-piece 48 series, twopiece 47 series with shell 10064 and IF series for large bore hoses





Notes	
	Notes



	Notes
Ca	italogue 4400/UK





Industrial Hoses

Technical Handbook





ENGINEERING YOUR SUCCESS.



Notes
alogue 4401/UK

Ь

Technical Handbook

Technical Handbook	TH3
Hose Selection Matrix	TH4
Rubber Hose Construction	TH6
PVC Hose Construction	TH7
Hose Part Number Description	TH8
Conversion Chart	TH9
Before you spec it, STAMP it.	TH10 – TH11
Standards	TH12
Guideline to Use and Cleaning of Food and Pharma Hose	TH13
Oil and Fuel Compatibility	TH14
Conductive Value Table	TH15
Properties of Basic Rubber Compounds	TH16
Chemical Resistance Table	TH17 – TH32
Chemical Resistance Guide for Silicone Hose	TH33
Rubber Hose Dimensional Tolerances – According to norms	TH34
PVC Hose Dimensional Tolerances	TH 34
Parker Safety Guide	TH35 – TH40
Critical Applications	TH39 – TH42

Technical Handbook

hymatik



тнз

Tech								C '	ti	0	n		M	9	t	ri	X								
Page	A4	A4	A5	AG	A7	A8	A9	B4	B5	BG	B7	B8	B9	B10	B11	B12	B12	B13	B14	B15	B16	C4	C5	CG	D4
Industry standard				EN 12115	EN 12115	EN 12115			SAE J 20R2 - D1		SAE J20R3 Class A	DIN 74310	SAE 30 R7					Refer to the page	EN ISO 7840 A1	SAEJ30R7/J30R14T2	AEJ30R7/J30R14T2	EN ISO 3821	EN ISO 3821	UNI CIG 7140	
Suc- tion			yes		yes	yes	yes		yes									light	yes	light	light				
De- sign factor	က	က	က	4	4	4	4	က	4	С	က	4	2	က	С	က	က	4	> 3.5	ß	2	с	က	С	က

NL 10 NL 20 N/L 20 SN 12115 12115 12115 12115 1215 1215 1215		ge Ap +80 fue	Range (°C) -25 / +80 fuel, oil, petrol aromatic < 50 %	Tube	Reinforcement textile	Cover NBR/EPDM	10 (bar)	3 factor	Suc- tion	Industry standard	Page
CARBOPRESS N/L 10 CARBOPRESS N/L 20 CARBURITE 10 CARBURITE 10 CARBURITE 10 CARBUCORD EN 12115 CHEMIOEL EN 12115 CHEMIOEL EN 12115 E-Z FORMT ^M HT RADIOR 10 E-Z FORMT ^M GS		+80 fue	I, oil, petrol aromatic < 50 %	NBR	textile	NBRVEPDM	10	m			
CARBOPRESS N/L 20 CARBURITE 10 CARBURITE 10 CARBOCORD EN 12115 CHEMIOEL EN 12115 CERVINO EN 12115 E-Z FORMTM HT RADIOR 10 RADIOR 10 CE-Z FORMTM GS											A4
CARBURITE 10 CARBOCORD EN 12115 CHEMIOEL EN 12115 CERVINO EN 12115 E-Z FORMT ^M HT RADIOR 10 F-Z FORMT ^M GS		+80 fue	-25 / +80 fuel, oil, petrol aromatic < 50 %	NBR	textile	NBR	20	с			A4
CARBOCORD EN 12115 CHEMIOEL EN 12115 CERVINO EN 12115 E-Z FORM™ HT RADIOR 10 E-Z FORM™ GS		+80 fue	-30 / +80 fuel, oil, petrol aromatic < 50 %	NBR	textile	NBR/SBR	10	с	yes		95 A5
CHEMIOEL EN 12115 CERVINO EN 12115 E-Z FORM™ HT RADIOR 10 E-Z FORM™ GS		+80 fue	-25 / +80 fuel, oil, petrol aromatic < 50 %	NBR	textile + copper wires	NBR/SBR	16	4		EN 12115	AG
15		+80 fue	-25 / +80 fuel, oil, petrol aromatic < 50 %	NBR	textile + copper wires	NBR/SBR	16	4	yes	EN 12115	Α7
<u> </u>		+80 fue	-40 / +80 fuel, oil, petrol aromatic < 50 %	NBR	textile + copper wires	NBR/SBR	16	4	yes	EN 12115	A8
	25.4 -40/+	+150 pet	2.7 - 25.4 -40 / +150 petroleum-based oil	CPE	textile	NBR	10	4	yes		A9
,	5 -30/+1	+100 co(00 cooling line system	EPDM	textile	EPDM	10	e			B4
	12.7 - 102 -45 / +1	+125 hig	25 high flexible hose for coolant line system	EPDM	textile	EPDM	5	4	yes	SAE J 20R2 - D1	B5
RADIOR DIN 6 10 - 50		+125 co(-40 / +125 cooling line system	EPDM	textile	EPDM	9	e			B6
Series 6722 6 - 25		+177 He	-54 / +177 Heater and cooling line system	SILICONE	textile	SILICONE	5.7	с		SAE J20R3 Class A	B7
AIRBRAKE DIN 74310 9 - 13		+70 bre	-40 / +70 breaking system	EPDM	textile	EPDM	10	4		DIN 74310	B8
Series 395 SAE J 30R7 4.8 - 12.7		+125 car	-40 / +125 car & motorbike fuel system	NBR	textile	CR	2.4/5.2	5		SAE 30 R7	B9
TBSE 4 - 10		+100 car	-30 / +100 car & motorbike fuel system	NBR	textile	NBR/EPDM	10	с			B10
TBE 3 - 7.5		+90 car	-20 / +90 car & motorbike fuel system	NBR	textile		10	с			B11
CARBOBLUE N/L 10 16 - 25		+100 no;	-40 / +100 nox reducing system	EPDM	textile	EPDM	10	с			B12
CARBOBLUE N/L 20 6 - 25		+100 no;	-40 / +100 nox reducing system	EPDM	textile	EPDM	20	с			B12
WAVEMASTERTM 6.3 - 19		+100 ma	-29 / +100 marine barrier fuel hose	NYLON	textile	NBR/PVC	7	4	light	Refer to the page	B13
SM/TR 311 19 - 50		-20 / +80 coolant line	plant line	NBR	textile	NBR/CR	ო ო	> 3.5	yes	EN ISO 7840 A1	B14
SUPER-FLEX® FL-7 4.7 - 19.1		+125 low	-40 / +125 low permation fuel hose	NBR/THV	textile	CPE	6.9	2	light S/	SAEJ30R7/J30R14T2	B15
SUPER-FLEX® FL 4.7 - 15.9		+125 low	-30 / +125 low permation fuel hose	NBR/ barrier	textile	CPE	6.9	-CJ	light A	AEJ30R7/J30R14T2	B16
AUTOGENE EN ISO 3821 NR/L – NB/L 20 6.3 - 10		+80 we	-25 / +80 welding process	EPDM/SBR	textile	EPDM	20	m		EN ISO 3821	C4
PROPANPRESS EN ISO 3821 NA/L 20 6.3 - 10	10 -30 / +7	0	propan gas delivery	NBR/NR	textile	EPDM	20	с		EN ISO 3821	C5
CARBO G NW/L 10 – NB/R 10 8 - 13	3 -20/+90	+90 hou	household applicances	NBR	textile	EPDM	10	с		UNI CIG 7140	C6
FUCINO 20 50 - 120	20 -30 / +80	+80 wa	water, non aggressive liquids	SBR	textile	SBR	20	с			D4
PRESCORD N/R 10 8 - 25	5 -30/+80		water, non aggressive liquids	SBR	textile	SBR/EPDM	10	с			D5
IDRO 10 25 - 75	75 -30 / +80		water, non aggressive liquids	SBR	textile	SBR	10	с			DG
BEVERA 10 19 - 203	03 -30 / +80	+80 wa:	water, non aggressive liquids	SBR	textile	SBR	10	m	yes		D7
MULTIREX 150		+60 wa:	-10 / +60 water, non aggressive liquids	PVC	PVC wire	PVC	7	e	yes		D8
RADIOR 3 10 - 100	00 -40 / +1	+100 co(00 cooling line system	EPDM	textile	EPDM	С	e			E4-E5
RADIOR K 1003 12 - 65		+100 cod	-40 / +100 cooling line system	NBR	textile	CR	2	m			E6
THERMOPRESS 10 12 - 60		+100 co(-40 / +100 cooling line and hot water	EPDM	textile	EPDM	10	4			E7
g VIGOR 2 EN ISO 6134 Type 2/A 13 - 51		+210 ste	-40 / +210 steam industrial application	EPDM	textile	EPDM	18	10	Ĩ	EN ISO 6134 Type 2/A	8
Image: Second		+210 ste	-40 / +210 steam industrial application	EPDM	textile	EPDM	18	10	Ĺ	EN ISO 6134 Type 2/A	8

-Parker

TH4

Catalogue 4401/UK



ISO 7840, ABYC, CARB, CE, EPA, NMMA, SAE J1527 A1-15, USCG A1

-35 / +100 chemical resistance table EPM textile + copper wires -20 / +100 chemical resistance table UHMWPE textile + copper wires -20 / +100 chemical resistance table UHMWPE textile + copper wires -40 / +150 chemical resistance table PTFE textile + copper wires -60 / +200 chemical resistance table S1LICONE textile + copper wires
UHMWPE UHMWPE PTFE SILLCONE
PTFE 1 SILICONE 1
SILICONE
-30 / +70 wet and dry sand and cement BR/NR
wet and dry sand and cement BR/NR
high pressure concrete pumping NR/SBR
CERAMIC textile + copper wires
PVC
-20 / +100 food & beverage, wash-down NBR
UHMWPE textile + copper wires
NBR
NBR
-40 / +120 wine and soft drinks food & beverage EPDM
PVC
PVC
-25 / +60 wine and soft drinks food & beverage PVC
-40 / +100 compressed air, non aggressive liquids EPDM
-40 / +100 compressed air, non aggressive liquids EPDM
-40 / +100 compressed air, non aggressive liquids EPDM
EPDM
EPDM
EPDM
EPDM
-30 / +80 compressed air, non aggressive liquids SBR/NBR
-34 / +120 high flexible hose for multipurpose NBR
NBR
NBR
PVC
PVC
PVC

Ь

hymatik

Technical Handbook

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

کت (Cr



Rubber Hose Construction



Tube

It is the innermost rubber or plastic element of the hose. Must be resistant to the materials it is intended to convey. The characteristics of the rubber or plastic compound and the thickness of the tube depend on the service in which the hose will be used.

Reinforcement

Can be textile, plastic or metal, alone or in combination, built into the body of the hose to withstand internal pressures, external forces or combination of both.

Cover

It is the outer element and can be made of rubber, plastic or textile materials. The function of the cover is to protect the hose from damage and environment.





Long Length (LL) Production method:

Seamless extruded hoses without or on flexible mandrel and eventually white lead vulcanization with synthetic textile yarn reinforcement for standard production up to 100 m and internal diameter up to I.D. 35 mm.



Mandrel Made (MM) Production method:

Hose produced on a rigid mandrel with a reinforcement of textile fabrics or steel braids, with or without steel wire helix, for standard production length up to 40 m and internal diameter range from I.D. 19 mm to I.D. 200 mm.



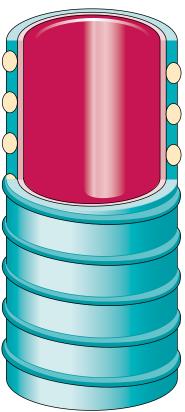
TH6

Catalogue 4401/UK

hymatik

Technical Handbook

<section-header><text>



TH7



Hose Part Number Description

1H <mark>35</mark>	→ PVC Hose
--------------------	------------

- IH_{30} \rightarrow Long Length Rubber Hose
- IH_{36}^{36} \rightarrow Mandrel made Rubber Hose
- IH_{42} \rightarrow Mandrel made Rubber Hose
- $IH_{7...}$ \rightarrow Global Hose Series





Example

IH<mark>35</mark>562019/50 → PVC Hose

IH35562019/<mark>50</mark> → PVC Hose, length 50 m

 $H35562019/0 \rightarrow PVC Hose, length: variable$

Hose to be ordered in coils.



TH8

Catalogue 4401/UK

Conversion Chart

	Unit	Base Unit	Conversion Unit	Factor	
	1 inch	in	mm	25.4	
Longth	1 milllimetre	mm	in	0.03934	
Length	1 foot	ft	m	0.3048	
	1 metre	m	ft	3.28084	
	1 square-inch	sq in	Cm ²	6.4516	
Area	1 square-centimetre	cm ²	sq in	0.1550	
	1 gallon (UK)	gal	I	4.54596	
	1 litre	I	gal (UK)	0.219976	
Volume	1 gallon (US)	gal	I	3.78533	
	1 litre	I	gal (US)	0.264177	
Weight	1 pound	lb	kg	0.453592	
weight	1 kilogramme	kg	lb	2.204622	
	1 pound foot	lb ● ft	kg ∙ m	1.488164	
	1 newton metre	kg ∙ m	lb ● ft	0.671969	
Torque	1 pound per square inch	psi	bar	0.06895	
	1 bar	er square inch psi bar ps	psi	14.5035	
	1 pound per square inch	psi	MPa	0.006895	
	1 mega pascal	MPa	psi	145.035	
	1 kilo pascal	kPa	bar	0.01	
Pressure	1 bar	bar	kPa	100	
	1 mega pascal	MPa	bar	10	
	1 bar	bar	MPa	0.1	
	1 foot per second	ft / s	m / s	0.3048	
Velocity	1 metre per second	m / s	ft / s	3.28084	
	1 gallon per minute (UK)	gal / min.	l / min.	4.54596	
	1 litre per minute	l / min.	gal / min. (UK)	0.219976	
Flow rate	1 gallon per minute (US)	gal / min.	I / min.	3.78533	
	1 litre per minute	l / min.	gal / min. (US)	0.264178	
Temperature	Fahrenheit degree	°F	С°	5/9 • (°F-32)	
remperature	Celsius degree	°C	°F	°C • (9 /5) +32	

(UK) Unit of United Kingdom (US) Unit of USA

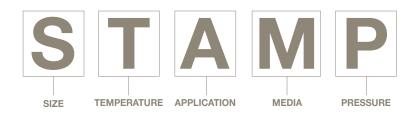
Parker

Catalogue 4401/UK

hymatik

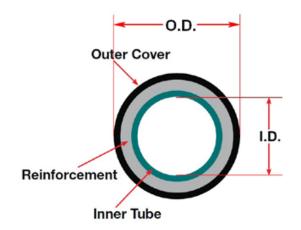


Before you spec it, STAMP it.



SIZE

The hose Internal and External Diameter must be sized accurately to obtain the proper values to couple the hose with reusable or permanent fittings. The measuring system of the inside and outside diameter of the hose is universally regulated by ISO 4671 while the hose tolerances are listed in the ISO 1307 if not superseded by particular and specific other norms (i.e. EN 12115).



TEMPERATURE

When specifying hose, there are two temperatures you need to identify. One is the **ambient temperature** which is the temperature that exists outside the hose in the application where it is being used; the other is the **media temperature** which is the temperature of the media conveyed through the hose. Very high or low ambient temperatures can have adverse affects on the hose cover and reinforcement materials, resulting in reduced service life. Media temperatures can have a much greater impact on hose life. For example, rubber loses flexibility if operated at high temperatures for extended periods.







TH10

Catalogue 4401/UK



APPLICATION

Before selecting a hose, it is important to consider how the hose will be used. Answering the following questions may help:

- Which is the media conveyed?
- What type of equipments are involved?
- · Is it a static or dynamic application?
- · Are there any routing constrains?
- Do you need particular cover features?
- Should the hose comply with any industry or government standards?
- Which are the electrical hose conductivity/ resistance requirements?



Technical Handbook

hvmatik

Sometimes specific applications require hoses specific dimensions, features or performance characteristics. For example, applications where hoses will encounter rubbing or abrasive surfaces, would be best handled by our family of abrasion resistant hose. When application space is tight, bend radius is another important consideration. We offer hoses with increased flexibility and smaller outer diameters enabling faster, easier routing in small spaces, reducing both hose length and inventory requirements. Industry standards set specific requirements concerning construction type, size, tolerances, burst pressure, and media compatibility. You must select a hose that meets the legal requirements as well as the functional requirements of the application.

MEDIA

What will the hose convey? Some applications require the use of specialized oils or chemicals. The hose you order must be compatible with the medium being conveyed. Compatibility must cover the inner tube, the cover, hose fittings, and o-rings as well. Use the Oil and Fuel and Chemical Resistance Chart you find in this section to select the correct components of the hose that will be compatible with your system's media.



Pressure

Hose selection must be made so that the published maximum working pressure of the hose is equal to or greater than the maximum system pressure. Surge pressures or peak transient pressures in the system must be below the published maximum working pressure for the hose.

Each Parker hose has a pressure rating which can be found on the HOSE SELECTION MATRIX. Burst pressure ratings are not an indication that the product can be used above the published maximum working pressure. It is for this reason that the burst pressure ratings have been removed from the hose charts within the catalog. However the burst pressure is indicated by the design factor of each hose type.



TH11

Catalogue 4401/UK



Standards

ABYC

WAVEMASTER™

BfR XXI cat. 2

GAMBRINUS BLUE 10 GAMBRINUS BLUE 10 SM GAMBRINUS RED 10 SM POLIAX PHARMA

CARB

WAVEMASTER™

CE

WAVEMASTER™ SM TR 311

DIN 73411

RADIOR DIN 6

DIN 74310

AIRBRAKE DIN 74310

DM 21/03/73

ENOREX GAMBRINUS BLUE 10 GAMBRINUS BLUE 10 SM GAMBRINUS RED 10 SM GAMBRINUS UPE SM EN 12115 POLIAX PHARMA

DM 220 26/04/93

GAMBRINUS UPE SM EN 12115

EC 1935:2004

ENOREX GAMBRINUS BLUE 10 GAMBRINUS BLUE 10 SM GAMBRINUS RED 10 SM

EU 10/2011

VINITRESS ENOREX APERSPIR

EN 1<u>2115</u>

CARBOCORD EN 12115 CERVINO EN 12115 CHEMIOEL EN 12115 GAMBRINUS UPE SM EN 12115 POLIAX D EN 12115 POLIAX D SM EN 12115 POLIAX FEN 12115 POLIAX UPE CON SM EN 12115 POLIAX UPE CON SM OND EN 12115

EN ISO 3821

AUTOGENE EN ISO 3821 NR/L - NB/L 20 PROPANPRESS EN ISO 3821 NA/L 20

EN ISO 3861

LIBECCIO EN ISO 3861

EN ISO 6134 VIGOR 2 EN ISO 6134 Type 2/A

EN ISO 7840 SM TR 311 WAVEMASTER™

EPA WAVEMASTER™

European Pharmacopoeia POLIAX PHARMA

MSHA MINIERA 20 MSHA

FDA

DRINKPRESS WB/L 10 GAMBRINUS BLUE 10 GAMBRINUS BLUE 10 SM GAMBRINUS RED 10 SM GAMBRINUS UPE SM EN 12115 POLIAX F POLIAX PHARMA

NMMA

WAVEMASTER™

SAE J 30 R7

CARBOPRESS SAE J 30 R7 SUPER-FLEX® FL SUPER-FLEX® FL-7

SAE J 20 R2 - D1 E-Z FORM™ GS

SAE J 20 R3 Class A SERIES 6722

SAE J 30 R14T2 SUPER-FLEX[®] FL SUPER-FLEX[®] FL-7

SAE J1527 A1-15 WAVEMASTER™

UNI CIG 7140 CARBO G NB/R 10 CARBO G NW/L 10

USCG A1 WAVEMASTER™

USP XXXII class - VI requirements

POLIAX PHARMA POLIAX F

-Parker

TH12

Guidelines to the Use and Cleaning of Food and Pharma Rubber Hose

The hoses offered in our catalogue are manufactured in accordance with the best production practices, observing the international norms and specifications regulating this sector to guarantee safety, performance, quality and hygiene.

Transport, storage, handling, usage and media may contaminate the hose and affect its performance.

Therefore Parker recommends cleaning and sanitizing the hose prior to and after each use to maintain hose efficiency and prevent harmful contamination.

However our suggestions are superseded by specific local government regulations and industry standards.

Compound

Cleaning and sanitizing steps:

- flush with hot drinking water
- · Cleaning process with detergents/chemicals
- Rinse with drinking water at 20 °C for max 10 min
- · Sterilization process
- Rinse with drinking water at 20 °C for max 10 min
- Check to determine that all residuals have been eliminated

The frequency depends on the type of food and liquid conveyed and environment condition.

The frequency and time of exposure to detergents/disinfectants may compromise the service life of the hose. Thus we recommend regular inspection of the hose to evaluate its physical conditions.

			•					
Hot Water	NBR, UPE, EPDM, SILICONE	-	Up to 90 °C					
	NBR		Up to 110 °C – max 10 min					
Steam	EPDM, UPE, PTFE	-	Up to 130 °C – max 30 min					
	SILICONE		Up to 135 °C – max 18 min					
	NBR, SILICONE	2%	Up to 65 °C					
Caustic Soda	INDR, SILICOINE	4%	Up to 25 °C					
Caustic Soua	EPDM, UPE, PFTE	2%	Up to 85 °C					
		5%	Up to 25 °C					
	NBR, SILICONE	0,1%	Up to 65 °C					
Nitric Acid	INDR, SILICOINE	2%	Up to 25 °C					
NILLIC ACIU		0,1%	Up to 85 °C					
	EPDM, UPE, PFTE	3%	Up to 25 °C					
Peracetic Acid	NBR, SILICONE	1%	Up to 25 °C					
	EPDM, UPE, PFTE	1 70	Up to 40 °C					

For other cleaning media and support pls contact Parker

Tor other cleaning media and support pis contact r ark

TH13



Technical Handbook



Oil and Fuel Compatibility

	Max Ambient	Fuel types							
Hose series	temperature °C	Fuel	Diesel	LPG-CNG	B10	B20	B100	E10	E100
CARBOCORD EN 12115	100	G up to 70°	E up to 70°	•	G up to 70°	G up to 70°	•	G up to 70°	•
CARBOPRESS N/L	100	G up to 70°	E up to 70°	X	E up to 70°	E up to 70°	E up to 70°	G up to 70°	•
Series 395 SAE J 30 R7	125	E up to 70°	E up to 100°	G up to 70°	E up to 100°	E up to 70°	G up to 70°	E up to 70°	E up to 70°
CARBURITE 10	100	E up to 70°	E up to 70°	•	G up to 70°	G up to 70°	•	G up to 70°	•
CERVINO EN 12115	100	E up to 70°	E up to 70°	•	G up to 70°	G up to 70°	•	G up to 70°	G up to 70°
CHEMIOEL EN 12115	100	E up to 70°	E up to 70°	•	G up to 70°	G up to 70°	•	G up to 70°	G up to 70°
E-Z FORM™ HT	150	E up to 120°	E up to 120°	•	E up to 120°	E up to 120°	G up to 100°	G up to 70°	G up to 70°
E-Z FORM™ MP	121	E up to 100°	E up to 100°	•	E up to 100°	E up to 100°	•	G up to 70°	G up to 70°
OILPRESS N/L	120	G up to 70°	E up to 100°	G up to 70°	E up to 100°	E up to 70°	E up to 70°	G up to 70°	E up to 70°
SM TR 311	80	E up to 70°	E up to 70°	•	E up to 100°	G up to 100°	•	E up to 100°	•
SUPER-FLEX® FL	125	E up to 100°	E up to 100°	•	E up to 100°	E up to 100°	E up to 100°	E up to 100°	G up to 100°
SUPER-FLEX® FL-7	125	E up to 100°	E up to 100°	•	E up to 100°	E up to 100°	G up to 100°	E up to 100°	G up to 100°
TBE	90	E up to 70°	E up to 70°	•	G up to 70°	G up to 70°	X	E up to 70°	G up to 70°
TBSE	100	E up to 70°	E up to 70°	G up to 70°	G up to 70°	G up to 70°	X	E up to 70°	G up to 70°
WAVEMASTER™	100	E up to 70°	E up to 70°	•	L up to 70°	E up to 70°	E up to 70°	E up to 70°	G up to 70°

Fuelmax 50 % Aromatic (Aliphatic /Aromatic + MBTE)DieselStd mineral DieselLPG-CNGLiquefied petroleum gas or Compressed Natural gasB10Biodiesel 10 % in std dieselB20Biodiesel 20 % in std dieselB100Biodiesel 100 %E10Ethanol Alcohol 10 % in FuelE100Ethanol Alcohol 100 %

The indicate temperature is related to the Media and not to the ambient



TH14

Conductive Value Table

As for ISO 8031

R<10⁴	Conductive Compound
10 ³ < R < 10 ⁸	Antistatic Compound
R > 10 ⁸	Insulating Compound

Electrical Properties of Rubber Hose

Electrical Conductivity

Industrial hoses generally fall into three categories:

conductive, nonconductive, or somewhere in-between. Because of its unique properties, it is possible for rubber to be nonconductive at low voltage and conductive at high voltage. When using a hose in an application that has electrical resistance requirements (low electrical resistance for conductive applications or high electrical resistance for nonconductive applications), always select a hose that is specifically designed to meet the specific need. Since conductivity or no conductivity is not a consideration for many applications, electrical resistance ratings do not exist for many hoses.

Conductive & Antistatic Hose

Static electricity is generated by the flow of material (even some liquids) through a hose. As the material flows, molecules collide and generate friction, which creates minute amounts of electrical charge (excess electrons). The charge accumulates potential energy at the delivery end the hose (coupling/nozzle). The amount of charge increases with material volume and linear velocity, coarseness of the material, and length of the hose. If not properly grounded, the acumulated charge (potential energy) will seek its own ground. The charge will be attracted to external materials in proximity (such as a steel storage container); if not properly grounded, the electrons may arc (jump) to the external material, igniting volatile materials in the hose, or in proximity to the hose. Electrically conductive wires and conductive rubber components are used in hose to prevent static electricity build-up and discharge as a spark. It is essential that the user determine the need for static bonded hose based on (a) the intended use of the hose, (b) instructions from the company's safety division, (c) the insurer, and (d) the laws of the localities and states in which the hose will be used. Some types of hose include a helical or static wire(s). This wire can be used for electrical continuity provided that proper contact is made and maintained between it and the hose couplings.

Nonconductive Hose

Nonconductive hose constructions are those that resist the flow of electrical current. In some specific applications, especially around high voltage electrical lines, it is imperative for safety that the hose be nonconductive. Unless the hose is designed particularly to be nonconductive and is so branded, do not conclude that it is nonconductive. Many black rubber compounds are inherently and inadvertently conductive. Nonconductive hose is usually made to a qualifying standard that requires it to be tested to verify the desired electrical properties. The hose is frequently (but not necessarily) non-black in colour and clearly branded to indicate it is designed for nonconductive applications.

WARNING!

Unless a hose is described as, or specifically and clearly branded to be conducting or nonconducting, assume that the electrical properties are uncontrolled.

Catalogue 4401/UK

hvmatik



TH15



Properties of Basic Rubber Compounds

This table provides some information on the general properties of the most common rubber compounds. Most compounds used in the manufacture of rubber hose are made of different basic rubbers, each contributing to the physical properties of the finished product.

ASTM D 1418	Chemical Name	Properties
CR	Chloroprene	Excellent weathering and ozone resistance, flame retarding, abrasion resistance. Good resistance to compressed air and to oil.
CSM	Chloro-sulfonyl-polyethylene	Excellent resistance to ozone, weathering and acid, particularly of the coloured compounds. Resistant to petroleum based fluids.
EPDM	Terpolymer of ethylene-propylene-diene	Good resistance to heat, ageing and abrasion. Poor resistance to petroleum based fluids.
EPM	Copolymers of ethylene and propylene	Excellent resistance to heat, ageing, abrasion and ozone. Good resistance to many chemicals. Poor resistance to aromatics.
FKM	Fluorine rubber	Excellent resistance to a wide range of chemicals and to heat. Poor physical properties.
IIR	Isobutene-isoprene	Good resistance to chemicals, such as alcohols, ketones and esters.
NBR	Acrylonitrile-butadiene	Excellent oil resistance good aromatics and solvents resistance.
NR	Natural rubber	Good physical properties including abrasion and low temperature resistance. Poor resistance to petroleum based fluids.
SBR	Styrene-butadiene	Good physical properties with resistance to heat and abrasion. Poor resistance to petroleum based fluids.
NBR/PVC	Acrylonitrile-butadiene-vynil-chloride	Good resistance to oil and aromatics. Recommended as hose cover, when a good weathering, ozone and abrasion resistance is required.
UHMWPE	Ultra high molecular weight polyethylene	Excellent abrasion resistance and very low coeffi- cient of friction. Excellent resistance to chemicals, oil and aromatic fuels. Biologically inert and suitable for foodstuffs delivery.
PTFE	Polytetrafluoroethylene	Excellent resistant against the majority of chemicals, also at high concentration. Superior resistance to heat. Very low friction. Great mechanical properties.
Silicone (VMQ)	Polysiloxane	Outstanding Heat and cold resistance. Resistance to oils, solvents and other chemicals. Electrical insulation.
	TH16	Catalogue 4401/UK

-Parker

Catalogue 4401/UK



Chemical Resistance Table

The following table is essentially based upon the most updated technical data available, on information from raw material suppliers, as well as some International Standards, e.g. ISO TR 7620, EN 12115, and other publications.

Due to the big variety and amount of different chemical products, the given ratings are only partly based on our own tests. Consequently, the chart is given as a guidance only, and it cannot be assumed as a guarantee, expressed or implied, for the suitability of a product for a specific application. This is due to the widespread range of parameters which are not under our direct control like temperature (internal and external) pressure (constant or peaks) frequency of service and working environment.

For the same reasons, it is impossible to give scientifically based indications concerning service life of hoses, and to determine a generally valid replacement date. This can be verified for instance with periodical hydrostatic tests and a visual check. When in doubt please contact our technical service.

Ratings are based on room temperature.

Parker will cooperate by supplying sampling for tests, and carrying out tests with special chemical products.

WARNING

The service life of rubber hoses is not endless. Consequently the user must periodically check the suitability of a rubber hose for the intended application, particularly in the presence of dangerous or polluting chemical products or when using the hose at elevated pressures and/or temperatures. Continuous use at the highest allowed pressures and temperatures dramatically reduces the service

life of a rubber hose. After use hose must be emptied out and washed

down. Many chemical products can cause severe injuries to people or damage to property, or risks of environmental pollution if the hose leaks or bursts.

Trade Name	Description	ASTM Codes
Butyl	Isobutylene-Isoprene	IIR
CPE	Chlorinated Polyethylene	CM
EPDM	Ethylene-Propylene-Diene	EPDM
Hypalon	Chlorosulfonated Polyethylene	CSM
Hytrel	Thermoplastic Polyester	TPC-ET
Natural	Natural Rubber	NR
Neoprene	Polychloropren	CR
Nitrile	Acrylonitrile	NBR
Nylon	Nylon Polymer	-
SBR	Styrene-Butadiene	SBR
Teflon	Fluorocarbon Resin	PTFE
UHMW	Ultra-High Molecular Weight Polyethylene	-
Viton	Floroelastomer	FKM
XLPE	Cross-Linked Polyethylene	XPE
compounds not in ca	talogue. Ask Parker for right solution	

E = Excellent

KEY

G = Good

C = Conditional X = Unsatisfactory

-Parker

TH17

Chemical Resistance Table

hymatik

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	
UNDECANOL	E			Е		E		E				E	
4-DIOXANE	G		G	Х		Х	Х	Х	E	Х		E	
-AMINO-2-PROPANOL	E			С		G		G				E	
AMINOBUTANE	Х		С	С		Х	Х	С		Х		E	
AMINOPENTANE	G		Х	G		G	Х	С				E	
BROMO-2 METHYL PROPANE	X		N	Х		Х	Х	Х				E	
BROMO-3 METHYL BUTANE	X		Х	X X		X X	Х	X X				E	
-CHLORO-2-METHYL PROPANE	X			X		X		X				E	
-CHLORO-3-METHYL BUTANE	Ĉ		Х	X		X	Х	X	E			E	
DECANOL	C		~	E		Ċ	X	E	-			E	
HENDACONAL	Ű	Е		-		Ŭ	~						
(2AMINOETHYLAMINO) ETHANOL	E	-		G		G		G					
(2ETHOXYETHOXY) ETHANOL	E		G	G		C	С	G	Е	G		Е	
(2ETHOXYETHOXY) ETHYL ACETATE	G		Х	G		Х	Х	С		Х		Е	
4-DI-SEC-PENTYLPHENOL		Е											
AMINOETHANOL	E		G	G		G	G	G				E	
CHLORO-1-HYDROXY-BENZENE		С											
CHLOROPHENOL	G	G	Х	С	Х	Х	Х	Х	Х	Х	Х	E	
CHLOROPROPANE	Х		Х	Х		Х	Х	Х	Х	Х		E	
ETHOXYETHANOL	G		G	С		С	С	G		Х		E	
ETHOXYETHYL ACETATE	G	Х	G	Х	Х	Х	Х	Х	G	Х		E	
ETHYL (BUTYRALDEHYDE)	G			Х		Х		Х				E	
ETHYL-1-HEXANOL	E		E	E		E	E	E		E	E	E	
ETHYLHEXANOIC ACID	С			G		С		С				E	
	E			E		X		X				E	
	G			X X		X X	V	X X				E	
BROMOPROPENE CHLORO-2-METHYL PROPANE	~	G		X		~	Х	~				E	
CHLORO-2-METHYL PROPANE CHLOROPROPENE	С	G	Х	Х		Х	Х	G		E		Е	
HYDROXY-4-METHYL-2-PENTANONE	E		E	Ĉ	С	Ĉ	ĉ	X	G	C		E	
CETALDEHYDE	E		E	C	G	U	X	X	E	X	Е	E	
CETAMIDE	-		E	Ŭ	G		G	~	-	~	-	-	T
CETIC ACID, GLACIAL	G	Е	G	С	Е	Х	X	G	Х	С	G	Е	
CETIC ACID 10 %	E	E	E	E	Х	В	В	Х	Е	F	В	Е	Г
CETIC ACID 30 %			Е				G						
CETIC ACID 50 %	E	E	E	E	С	Х	С	С	С	Х		G	Γ
CETIC ANHYDRIDE	G	E	G	E	С	С	G	Х	Х	Х	G	E	
CETIC OXIDE	G		В	Е		Х					В	E	
CETONE	E	G	E	Х	С	С	Х	Х	E	С	E	E	
CETONE CYANOHYDRIN	E			С		С	В	Х			E	E	
CETONITRILE	E		E	G		В	E	С			E	E	
	G	0	E	Х		Х	Х	Х		X	E	F	1
	E	G	E	Х	V	Х	X	X	V	Х	E	E	
	X	E	C	v	Х	C	Х	X	Х	Х	C		
CETYL OXIDE CETYLENE	E	G	G	X C	G	C G	Е	X	Е	С	G E	E	
CETYLENE DICHLORIDE	C	u	C	X	u	X	X	X	L.	0	L.	E	
CETYLENE TETRACHLORIDE	X		X	X		X	X	X				E	
CROLEIN	E		E	G		G	C	C		С		E	
CRYLIC ACID	_	E	_	0.		0.	Ū	Ū		U		_	Г
CRYLONITRILE	Х	Е	Х	С		С			Е	С		Е	
DIPIC ACID			E			Е	Е	E				E	Г
R +149 °C (+300 °F)	G		G	G		Х	G	G		Х	Е		
K-TRI	Х			Х		Х		Х				E	Γ
LYL ALCOHOL	E		E	Е		E	Е	E				E	
LYL BROMIDE	Х			Х		Х						E	
LYL CHLORIDE		G		Х		Х		G		G		E	
UM	E	E	E	E		E	E	E	G			E	
LUMINUM ACETATE (AQ)	G	E	E			E	G	G		Х		E	
LUMINUM CHLORIDE (AQ) 40 %	G	С		_		E	E	G	Х	_			
	E		E	E		E	E	E	G	E		E	
	G		E	X		Х	-	-	~	~		E	
	E	E	E	G		E	E	E	G	G		E	ſ
LUMINUM NITRATE (AQ) LUMINIUM PHOSPATE	E	E	E	E		E	E	E		E		E	
			E F				E						1

-Parker

TH18



Chemical Resistance Table

Technical Handbook

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	TPC-ET	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	NHHU
LUMINUM SULFATE (AQ)	E	E	E	E	G	E	E	E	E	G	E	E	E
LUMS-NH3-CR-K	E		Е	Е		Е	Е	Е	С	Е		Е	E
MINES – MIXED	G		G	Х	G	G		Х		G			
MINO XYLENE	G		С										
MINOBENZENE		G							С				
MINODIMETHYLBENZENE	G	С										E	
MINOETHANE	G		E	С		С	Х	Х		С		E	
MMONIA LIQUID			E				E						G
MMONIUM ANHYDROUS			E				E						G
MMONIUM CARBONATE (AQ)	E		E	G		E	E	G	G	E		E	
MMONIUM CHLORIDE (AQ)	E	G	E	G	E	E	E	G		E	E	E	E
MMONIUM HYDROXIDE	E	E	E	E								E	E
MMONIUM NITRATE (AQ)	E	G	E	E	G	E	E	E	G	E		E	E
MMONIUM PHOSPHATE, DIBASIC	E	E	E	E		E	E	E	E	E		E	E
MMONIUM SULPHATE (AQ)	E	E	E	E	G	E	E	E	G	G		E	E
MMONIUM SULPHITE	E		E	E		E	E	E		E		E	
AMMONIUM THIOSULPHATE	E		E	E		E	E	Е				Е	
MYL ACETATE	G		E	Х	С	Х	Х	Х	G	Х	Х	E	E
AMYL ACETONE	G			Х		Х						Е	
AMYL ALCOHOL	E	E	E	E	E	E	E	G	E	E	E	E	E
MYL AMINE	G			С		С		С				E	
MYL BROMIDE												E	
AMYL CHLORIDE	Х	С	Х	Х		Х	Х		E	Х		E	E
AMYL ETHER				С				С				E	
ANETHOL	Х	Х		Х		Х			G			E	G
ANILINE	E	G	G	Х	Х	Х	Х	Х	С	Х		E	Е
NILINE DYES	G		G	G		G	С	Х	Х	G		E	E
NILINE OIL	G	G	С									E	
NIMAL FATS	С		E	С	G		G	E	Е	Х	Е	E	E
NTIMONY CHLORIDES	E		E	G			Х	G				E	
QUA REGIA	Х		G	Х		Х	Х	Х		Х		E	Х
RGON	G		E	Х	Е	Х	X	E	Е	Х		E	E
ROMATIC HYDROCARBONS	C.		-		-			_	-			_	C
RSENIC ACID	E	E	Е	Е		G	Е	Е	G	Е		G	E
SPHALT	X	-	X	X	С	X	X	X	E	X	Е	E	X
ASTM FUEL A	X	E	X	G	E	X	G	E	E	X	X	E	G
STM FUEL B	X	G	X	X	E	X	X	X	E	X	X	E	G
STM FUEL C	X	C	X	X	E	X	X	~	E	X	X	E	G
ASTM OIL NO. 2	X	E	X	X	E	X	G	Е	E	X	X	E	E
STM OIL NO. 3	X	L .	X	G	E	X	C	E	E	X	X	E	E
STM OIL NO. 4	X		X	X	L	X	X	G	L	X	~	-	E
ASTM OIL NO. 1	X	E	X	G	E	X	E	E	E	X	Х	Е	E
UTOMATIC TRANSMISSION FLUID	X	L.	X	C	E	X	G	E	G	X	X	E	E
BANANA OIL	~		G	C	L.	~	u	X	u	X	~	E	E
BARIUM CHLORIDE (AQ)	E	G	E	E	G	Е	Е	Ē	G	Ē		E	E
SARIUM HYDROXIDE (AQ)	E	G	E	E	G		E	E	G G	E		E	E
BARIUM HYDROXIDE (AQ) BARIUM SULFIDE (AQ)		G			G	E			G				
	E		E	E		E	E	E		G		E	E
	E	0	E	E	0	E	G	E	Г	E		E	E
BEET SUGAR LIQUORS	E	G	E	E	G	E	G	E	E	E		E	E
BENZAL CHLORIDE	G		F	v	0	v	V	v	Г	V	V	E	E
	G	~	E	X	G	X	X	X	E	X	X	E	E
	X	С	Х	X	С	Х	Х	X	G	Х	Х	E	G
BENZENE CARBOXYLIC ACID	E			Х		N	E	X	6			E	
BENZINE	X		Х	Х		Х	С	С	G	Х		E	-
BENZOIC ACID	Х					Х	E	Х	E	Х		E	E
		С	Х		С			Х	G			E	G
ENZOTRICHLORIDE												E	G
ENZYL ACETATE	E			G		Х						E	E
ENZYL ALCOHOL	G		G	G	С	Х	Х	Х	С	Х	Х	E	E
ENZYL CHLORIDE	Х	Х	Х	Х		Х	Х	Х		Х		E	E
ENZYL ETHER	G		С	Х		Х	Х	Х		Х		E	
IS (2-CLOROETHYL) ETHER	Х			Х		Х		Х		Х		E	
LACK SULFATE LIQUOR	G	С	G	G	G	G	G	G	С	G		E	E
3LEACH (2 – 15 %)	G		E	Е	G	Х	Х	Х	С	Х		Е	E
BORAX SOLUTION	E	G	E	E	E	G	E	G	G	G		E	E
			E	Е	E	E	E	E	G	Е	Е	E	Е

-Parker

TH19



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	NMHU
BRAKE FLUID (HD-557) 12 DAYS BRINE	G	E G	E	G E	G	E	G G	C E	E G	E		E	E
BROMACIL	E	G	E		G	E	G	E	G			E	E
BROMOBENZENE	Х	Х	X	Х		Х	Х	Х		Х		Е	С
BROMOCHLOROMETHANE	Х	Х	G	Х		Х	Х	Х				E	
BROMOETHANE	Х		Х	Х		С	Х	G		Х		E	
BROMOTOLUENE	Х	Х		Х		Х				Х		E	
BUGDIOXANE			N/	N		N		-				-	-
	X		X	X X		X	X X	E X		X X		E	E
BUTADIENE BUTANE	X		X	X	Е	X	C	Ē	E	X		E	E
BUTANOIC ACID	~		G	Ĉ	L	~	U	L	L	~		E	L
BUTANOL (BUTYL ALCOHOL)	G	G	G	E	G	Е	E	Е	G	Е	G	E	E
BUTANONE	E	G	E	X	E	_	_	X	G	_	Х	G	E
BUTOXYETHANOL	E		E	Х		Х	Х	С				E	
BUTYL ACETATE	Х	С	Х	Х	С	Х	Х	Х	G	Х		Х	E
BUTYL ACRYLATE	Х		Х	Х		Х	Х	Х				E	G
BUTYL ALCOHOL	G	G	G	E	G	E	E	E	G	E	G	E	E
BUTYL ALDEHYDE	G		G	C		X	С			X	G	E	E
BUTYL BENZYL PHTHALATE BUTYL CARBITOL	E		Е	X		X	0	V		X		E	E
BUTYL CARBITOL BUTYL CELLOSOLVE	E		G	X		X	C X	X C		X X	Е	E	E
BUTYL CHLORIDE	C		u	X		X	~	U		~	L	E	C
BUTYL ETHER	X		Х	X		X	Х	Х		Х		E	E
BUTYL ETHER ACETALDEHYDE	G			Х		Х			Х			E	E
BUTYL ETHYL ETHER	Х			Х		Х		G				E	E
BUTYL OLEATE	G		G	Х		Х	Х	Х		Х		E	
BUTYL PHTHALATE	G		E	Х		Х				Х		E	
BUTYL STEARATE	Х		Х	Х		Х	Х	G		Х		E	E
BUTYLENE	X		X	Х	G	Х	С	E	G	Х		E	-
BUTYRALDEHYDE BUTYRIC ACID	G		C G	С		X X	X X	X X		X X		E	E
BUTYRIC ANHYDRIDE	C		G	G		C	^	Ĉ		^		E	
CADMIUM ACETATE	E			E		X		U				E	E
CALCIUM ACETATE	E			С		E	G	G		Х		E	E
CALCIUM ALUMINATE	E			Е		E		Е				E	
CALCIUM BICHROMATE	E			С								E	
CALCIUM BISULFIDE			Х		G		С	E	G	G		E	
	-	0	E	-	-	-	E	-	-	-		-	E
	E	G	E	E	E	E	E	E	E	E		E	E
CALCIUM HYDROXIDE CALCIUM HYPOCHLORITE	E	G	E	G E	E C	E X	E C	E X	E X	E X		E	E
CALCIUM NITRATE	E	u	E	E	U	E	E	E	E	E		E	E
CALCIUM SULFIDE	E	Х	E	E		X	E	E	E	X		E	E
CAPRILIC ACID	С			G		С		С				E	E
CARBAMIDE	G			E		E	G	G				E	
CARBITOL	E		G	G		Х	С	G	E	G		E	E
CARBOLIC ACID (PHENOL)	G	G	Х	Х		Х	Х	Х	Х	Х	Х	E	E
	G		G	G		G	G	E	E	G		E	E
	X	0	Х	Х	-	X	Х	Х	Х	X	-	E	E
CARBON MONOXIDE CARBON TETRACHLORIDE	E	G C	E X	E X	E X	C X	E X	E C	E X	G X	E X	E	G
CARBON TETRAFLUORIDE	^	C	G	^	~	~	~	U	^	^	~	E	B
CARBONIC ACID	E	Х	E	E	Х	E	G	G	G	G	Х	E	
CASTOR OIL	G	G	G	E	C	E	E	E	G	E	C	E	E
CAUSTIC SODA (SEE SODIUM HYDROXIDE)	E		E		С		E		G		E	E	
CELLOSOLVE ACETATE	G		G	Х		Х	Х	Х	G	Х		E	E
CELLUGUARD	E		E	Х		E	E	E	G	E		E	
CELLULOSE ACETATE				-	_	_	Х	-		-	-	_	В
	G	G	G	C	E	E	G	E	C	B	E	E	
CHINA WOOD OIL (TUNG OIL)	X	С	X	E	G	X	E	E	G	X		E	
CHLORDANE CHLORINATED SOLVENTS	X	х	X X	C X	С	X X	C X	G X	G X	X X		E	
CHLORINE GAS (DRY)	^	^	~	~		~	C	~	^	~		Ē	C
CHLORINE WATER SOLUTION (MAX. 3 %) + G108							0						E
. , ,	Х		Е	Х		Х	С	Х		Х		E	
CHLORO-2-PROPANONE													

TH20



Chemical Resistance Table

Technical Handbook

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	NMHU
HLOROACETIC ACID	G		G	G	Х	Х	Х	Х	Х	Х	Х	E	E
HLOROACETONE	Х		Е	Х		Х	С	Х		Х		E	E
HLOROBENZENE, MONO, DI, TRI	Х		Х	Х	Х	Х	Х	Х	E	Х	Х	E	G
HLOROBUTANE	С			Х		Х		Х				E	G
HLOROETHYLBENZENE	Х	Х	Х	Х		Х				Х		E	E
HLOROFORM	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	E	E
HLOROPENTANE	С			Х		Х				Х		E	E
HLOROPHENOL													В
HLOROSULFONIC ACID	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Е	Х
HLOROTOLUENE	Х		Х	Х		Х	Х	Х		Х		E	G
HLOROX	G		G	G		Х	G	G		Х		Е	G
HROME PLATING SOLUTIONS	Х		Х	Х		Х	Х	Х		Х		E	
HROMIC ACID	G	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	E	
HROMIUM TRIOXIDE	G	X	X	X	X	X	Х	X	X	X	X	E	
INNAMENE	X		X	X	X	X	X	X		X		E	
SIS-9-OCTADECENOIC ACID	X	Х	C	G	E	X	C	E	Е	X		E	
DITRIC ACID	E	X	E	E	G	E	E	E	G	Ē	Е	E	Е
COAL OIL	X	^	X	C	G	X	G	E	E	E.	X	E	E
	X				v				C	v		E	E
XOAL TAR NARHTHA			X	X	Х	X	С	G		X	Х		E
COAL TAR NAPHTHA	X		X	X		X	~	Х		X		E	-
	G		G	C		X	C	E	_	Х		E	E
COKE OVEN GAS	X		X	X		Х	X	Х	E	Х		С	
COOLANOL (MONSANTO)	Х		Х	G	Х	Х	G	E		Х			
COPPER CHLORIDE	E	Х	E	G	E	G	G	E	С	E		E	E
COPPER CYANIDE	E		E	G		E	E	Е	G	E		E	E
COPPER HYDRATE	E			G		С		G				E	E
COPPER HYDROXIDE	E			G		С		G		G		E	
COPPER NITRATE			E				E						E
COPPER SULFATE	E	Х	E	E	E	G	E	E	G	G		E	E
CORN OIL	G		Х	G	E	Х	С	E	G	Х	E	E	E
COTTONSEED OIL	С	G	С	G	E	Х	С	G	E	Х		E	E
REOSOTE	Х		Х	Х		Х	Х	G	Х	Х		E	E
RESOLS	Х		X	Х	Х	Х	Х	Х	Х	Х	Х	E	E
RESYLIC ACID	Х		Х	Х		Х	Х	Х		Х		E	E
ROTONALDEHYDE	E		E	Х		Х	Х	Х		С		E	E
CRUDE OIL			X				X	G	Е	X		E	E
CUMENE	Х		X	Х		Х	X	X	_	X		E	E
CUPRIC CARBONATE	E		~	E		C	E	E		~		E	E
	E			G		C	L.	G				E	-
UPRIC NITRATE	E		E	E		G	Е	E				E	Е
UPRIC SULFATE	E		E	E		G	E	E		E		E	E
UTTING OIL	X		X	G		X	G	E		X		E	L
YCLOHEXANE	X				E		X	G	G		v	E	Е
			X	Х	E	X				X	X		
YCLOHEXANOL	X		X	B		X	G	G	G	X	X	E	E
YCLOHEXANONE	X		C	X		X	X	Х	G	Х	Х	E	E
YCLOPENTANE	X		Х	Х		Х	E	G				E	E
YCLOPENTANOL	Х			Х		Х		G		Х		-	E
YCLOPENTANONE	X			Х		Х		Х				E	
YCLOPENTYL ALCOHOL	Х			Х		Х		G		Х			E
DT IN DEIONIZED KEROSENE	Х		Х	Х		Х	С	E	E	Х		E	
ECAHYDRONAPTHALENE	Х		Х	Х		Х	Х	Х	G	Х	Х	E	
ECAHYDROXYNAPTHALENE		С											
ECALIN	Х		Х	Х		Х	Х	Х	G	Х	Х	E	Х
ECYL ALCOHOL	Х			Е		Х	Х	Е				E	E
ECYL ALDEHYDE	С			Х		Х						E	E
ECYL BUTYL PHTHALATE	E			Х		Х		Х				Е	E
DECYL CARBINOL	E			E		E		E				E	
DETERGENT, WATER SOLUTION"	E		Е		G		G	E		G		E	E
EVELOPING FLUID (PHOTO)	G		G	Е	X	Е	E	E		G		E	
EXTRON	X		X	X	~	X	G	E		X		-	
I(2ETHYLHEXYL) ADIPATE	E		G	X		X	X	X		~		Е	
I(2ETHYLHEXYL) PHTHALATE	G		G	X	E	X	X	X	E	Х		E	
	E		E		C	X	X	X	C	X		E	Е
		0		X	U						F		E
	E	G	E	Х		Х	Х	Х		Х	E	E	
IALLYLPHTHALATE IAMMONIUM PHOSPHATE	_	G	-	-		-	-	-		-		-	
	E	E	E	E		E	E	E		E		E	

TH21



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	
NAMYL NAPTHALENE	E			Х		Х						E	-
DIAMYL PHENOL	Х			Х		Х		Х		Х		E	
DIAMYLAMINE	E		E	С		G		G		Х		E	
DIAMYLENE	Х			Х		Х	Х	С	G			E	
IBENZYL ETHER	G		С	Х		Х	Х	Х		Х		E	
IBROMOBENZENE	Х			Х		Х						E	
IBROMOMETHANE	Х		С	Х		Х	Х	Х			Х	E	
IBUTYL ETHER	Х		Х	Х		Х	Х	Х		Х		E	
IBUTYL PHTHALATE	С		E	Х	G	Х	Х	Х	E	Х		E	
IBUTYL SEBACATE	G		G	Х	G	Х	Х	Х		Х		E	
IBUTYLAMINE	Х		Х	Х		Х	Х	Х		Х		E	
ICALCIUM PHOSPHATE	E			E		E		E				E	
ICHLORO DIFLUORO METHANE	X	С	С	E	Е	X	G	C	G	Е	Х	E	
NCHLORO ETHYLENE	C	0	X	X	X	~	X	0	C	L.	X	E	
			^		~	0	^		U		^	E	
	C		0	Х		G	V	0		V			
DICHLOROBUTANE	Х		С	Х		Х	Х	G		Х		E	
	C	Х	Х	Х	Х	Х	Х	Х	С	X	Х	E	
NCHLOROETHYL ETHER	Х			Х		Х		Х		Х		E	
ICHLOROFLUOROMETHANE													
ICHLOROHEXANE	Х			Х		Х						E	
ICHLOROMETHANE	Х		С	Х	Х	Х	G	Х	С	Х	Х	E	
ICHLOROPENTANE	Х			Х		Х	Х	Х		Х		E	
ICHLOROPROPANE	Х			Х		Х	Х	Х				E	
ICHLOROPROPENE												E	
ICHLOROTOLUENE		Х										-	T
IESEL OIL	Х	F	Х	С	G	Х	С	E	E	Х	Х	E	
		E					C	E			^		
	E		E	С	X	G	X	N	G	X	-	E	
IETHYL ETHER	Х		Х	Х	С	Х	Х	Х	E	Х	E	E	
IETHYL KETONE	G		E	Х		Х	Х					E	
IETHYL OXALATE	Х		Х	Х		Х	Х	Х				E	
IETHYL PHTHALATE	E			Х		Х						E	
IETHYL SEBACATE	G		G	С	E	Х	Х	Х		Х	E	E	
IETHYL SULFATE	G		E	Х		Х	E	Х		E		E	
IETHYL TRIAMINE	E			С		G		G				E	
IETHYLAMINE	G		G	С		G	G	С		G		E	Т
IETHYLBENZENE	Х		X	X		Х	Х	X		Х		E	
IETHYLENE GLYCOL	E		E	E	Е	E	E	E		E		E	T
IETHYLENE OXIDE	X		E	L.	L.	L.	L.	L.		L.		E	
				0		0				V	-		
	E		E	С		G	-	-		Х	E	E	
IHYDROXY DIETHYL ETHER	E		E	E		E	E	E				E	
IHYDROXY SUCCINIC ACID	G		G	E		E	С	G				E	
IISOBUTYL KETONE	G		E	Х		Х	Х	Х		Х		E	
IISOBUTYLENE	Х		Х	Х		Х	С	E		Х		E	
NISODECTYL PHTHALATE	E		E	Х		Х				Х		E	
IISODECYL PHTHALATE	E		E	Х		Х	Х	Х				E	Т
IISOOCTYL ADIPATE	E			Х		Х		Х		Х		E	
IISOOCTYL PHTHALATE	E		G	Х		Х						E	Т
IISOPROPANOLAMINE	E			С		G		G				E	
IISOPROPYL ETHER	X		Х	C		X	Х	G		Х		E	Т
IISOPROPYL KETONE	E		E	X		X	X	X		X		E	
INSUFRUETE RETURE			G		Е						0		
	G		G	Х	E	Х	Х	X		Х	G	E	
IMETHYL SULFATE	G			Х				Х				E	
IMETHYL SULFIDE	С					Х		Х				E	
IMETHYLAMINE	G		Х	Х			Х	Х				E	
IMETHYLANILINE	X	С	G	Х			Х	Х		Х		E	
IMETHYLBENZENE	Х	С	Х	Х	Х		Х	Х	G	Х	Х	Х	
IMETHYLBUTANE		G											T
IMETHYLCARBINOL	E		G	Е		Е	Е	G				E	
IMETHYLFORMAMIDE	_		G				_						T
IMETHYLKETONE	E	G	E	Х	С		Х	Х	E	С	E	E	
IOCTYL ADIPATE	E	a	G	X	0	х	X	X	L	U	L	E	
					F				Г	V			
	G		G	Х	E	Х	Х	Х	E	X		E	
IOXALANES	Х		G	Х		Х	Х	Х		Х		E	
IOXANE	G		G	Х		Х	Х	Х	E	Х		E	
IPENTENE	Х		Х	Х		Х	Х	G		Х		E	
			E	С		G		G		Х		E	

TH22



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	UHMW
DI-P-MENTHA-1,8-DIENE	Х		X	X		Х	X	G		Х		E	
DIPROPYLAMINE	E			С		G		G				E	
DIPROPYLENE GLYCOL	E			E		E		E				E	
DISODIUM PHOSPHATE	E		E	E		E		E				E	E
DIVINYL BENZENE	Х			Х		Х				Х		E	E
DOWELL INHIBITOR		G											
DOWFAX 2A1 SOLVENT		E											
DOWFAX 2A1 TA		E											
DOWFAX 6A1 SOLVENT		G											
DOWFAX 6A1 TA		E											
DOWTHERM, A AND E"	Х	Х	Х	Х	G	Х	Х	Х	Х	Х		С	Е
DRY CLEANING FLUIDS	Х		Х	Х			Х	С		Х		E	
DUCGKIRIOEBAANE	X												
DURO AW16, 31	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Х					Е	Е			E	
DURO FR-HD			X					E	E			E	
EHTYL BUTYL ACETATE	E		~	G		Х		X	L			E	Е
EHTYL DICHLORIDE	C		С	X		X	х	X		х		E	-
ENTYLENE DIBROMIDE	X		C	X		X	X	X		X		E	G
	~			~		~	~	~		~		C	
	0	-	C	0	0	V	0	0	0	0	0	F	В
	G	E	E	C	C	Х	G	C	C	G	C	E	_
ETHANOL (GRAIN ALCOHOL)	E	G	E	E	E	E	E	E	Х	E	E	E	E
ETHANOLAMINE	G		G	Х		G	G	G		Х		E	Е
ETHERS	Х	G	С	Х	Х	Х	Х	Х	E	Х		E	
ETHYL ACETATE	G	G	E	Х	С	Х	Х	Х	E	Х	E	E	E
ETHYL ACETOACETATE	G		G	Х		С	Х	Х		С		E	E
ETHYL ACETONE	G		G	Х		Х	Х	Х		Х		E	
ETHYL ACRYLATE	G		G	Х		Х	Х	Х		Х		E	E
ETHYL ALCOHOL	E	G	E	E	E	E	E	E	Х	E	E	E	E
ETHYL ALDEHYDE	G		E	С		Х	Х	Х				E	E
ETHYL ALUMINUM DICHLORIDE	Х			Х		Х		Х				E	
ETHYL BENZENE	Х		Х	Х		Х	Х	Х		Х		E	E
ETHYL BROMIDE	Х		Х	Х		С	Х	G		Х		E	
ETHYL BUTANOL	E			E		E		E				Е	E
ETHYL BUTYL KETONE	G			Х		Х		Х				E	_
ETHYL CELLULOSE	G		G	G	G	G	G	G	С	G		E	Е
ETHYL CHLORIDE	E	Х	E	C	X	C	X	E	E	G	Х	E	G
ETHYL DIISOBUTYLTHIO-CARBAMATE		~	L	U	~	E	~	L	L	E	~	L.	E
ETHYL ETHER	Х	G	Х	Х		X	Х	Х	E	X		E	E
ETHYL FORMATE	G	u	G	G		X	G	X	L	X		E	E
ETHYL IODIDE	C		C	X		X	X	X		~		E	G
ETHYL OXALATE							X			V		E	
	X		С	Х		C	~	Х		Х			E
ETHYL PHTHALATE	E		-	Х		Х	-	Х				E	E
	E		E	G		G	E	E		G		E	E
ETHYLAMINE	G		E	С		С	Х	Х		С		E	E
ETHYLENE													E
ETHYLENE BROMIDE			С										В
ETHYLENE CHLORIDE													G
ETHYLENE CHLOROHYDRIN	G		G	С		С	G	Х				E	E
ETHYLENE DIAMINE	E		E	G		G	Е	G		G		E	Е
ETHYLENE DIBROMIDE													В
ETHYLENE DICHLORIDE	С	Х	Х	С	Х	Х	Х	Х	С	Х	Х	E	G
ETHYLENE G MONOETHYL E ACETATE	E		E	Х		С	Х	С				Е	
ETHYLENE G. MONOBUTYL ETHER	E		E	С		Х	С	С		Х		E	
ETHYLENE G. MONOHEXYL ETHER													
ETHYLENE G. MONOMETHYL ETHER	E		G	G		Х	E	С				E	
ETHYLENE GLYCOL	E	G	E	E	Е	E	E	E	E	Е	Е	E	Е
ETHYLENE OXIDE	X	X	C	X	E	X	X	X	G	X	-	E	-
FATTY ACIDS	X	~	X	C	G	X	G	Ē	E	X	V	E	Е
FERRIC BROMIDE	E		~	E	G	E	G	E	C	~	Х	E	E
		V	F		0		Г		0	F			
	E	Х	E	E	G	E	E	E	C	E		E	E
FERRIC NITRATE	E		E	E		E	E	E	E	E		E	E
	E	Х	E	E	E	E	E	E	E	E		E	E
FERROUS ACETATE	E			E		Х		Х				E	
FERROUS CHLORIDE	G		E	G	E	E	G	E	E			E	Е
	E		E	E	E	E	E	E	E	E		E	E
FERROUS SULFATE	E		L	E	L .	E	L .	L .	L_	-		L_	

-Parker

TH23



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	MMHT
	G		E	E	N	E	E	E	V	E		E	C
	X	0	E	X	X	Х	X	X	Х	0	-	G	X
ORMALDEHYDE ORMALIN	E	G	E	G G	C C		G G	C C	E	C C	E	E	E
ORMIC ACID	E	X	E	E	C	С	E	C	X	E	E	E	E
REON 113	X	~	X	E	E	X	E	E	X	G	X	E	
REON 12	C	С	C	E	E	C	E	E	G	E	X	E	
REON 22	X	C	E	E	Х	C	E	Х	G	E	Х	E	
REON 502	E		E			E	Е	G	E	E			
UEL A (ASTM)	Х	E	Х	G	Е	Х	G	Е	E	Х	Х	E	G
UEL B (ASTM)	Х	G	Х	Х	Е	Х	Х	Х	E	Х	Х	E	G
UEL C (ASTM)			Х				С						G
UEL OIL	Х	E	Х	С	G	Х	G	E	G	Х		E	E
URALDEHYDE	E	E	G	С	G	Х	С	Х	С	Х	E	E	
URAN	X	_	Х	Х		Х	Х	Х		Х	_	E	
URFURAL	E	E	G	С	G	Х	С	Х	С	Х	E	E	E
	X		X	X	0	X	X	Х	0	X	_	E	
	G		G	X	G	Х	X	X	G	X	E	E	E
ALLIC ACID ALLOTANNIC ACID	G		G E	G E	Х	E	G E	G E	G	G		E	L I
ALLOTANNIC ACID AS, 100 OCTANE	X		X	X	Е	X	C	E	G	х	х	E	(
AS, COAL	^		E	~	G	^	E	X	E	^	~	L	
ASOLINE	Х	E	X	х	E	х	X	Ē	G	х		E	(
	~		~	~	-	~	~	-	G	~			
LUCONIC ACID	С			G		Х		С				Е	
LUCOSE	E		Е	E	G	E	G	E	G	Е		E	
ILYCERINE	E	E	Е	Е	E	Е	E	Е	G	Е	Х	Е	
LYCEROL	E	E	Е	Е	Е	Е	Е	Е	G	Е	Х	Е	
LYCOGENIC ACID	С			G		Х		С				E	
ILYCOLS	E		E	E	С	E	E	E	G	E	G	E	
LYCONIC ACID	С			G		Х		С				E	
ILYCYL ALCOHOL	E	E	E	E	E	E	E	E	G	E	Х	E	
REASE, PETROLEUM BASE	Х	E	Х	Х	E	Х	С	E	E	Х	Х	E	
REEN SULFATE LIQUOR	E		E	G	Х	G	G	G	Х	G		E	
ALON 1211	_		-	-		_	E	E	-	-		-	
	E		E	E		E	E	E	E	E		E	
EPTALDEHYDE	X			Х		X		E				E	
EPTANAL EPTANE	X	E	х	X G	G	X X	G	E	Е	х		E	
EPTANE EPTANE CARBOXYLIC ACID	C	E	~	G	G	X	G	C	E	^		E	
EPTANE CARBOXTLIC ACID	U	E		G		^		U				E	
EPTANONE		C											
EXADECANOIC ACID	G	G	G	С	Е	E	G	Е	С	В	E	Е	
EXALDEHYDE	G	0.	E	C	-	X	E	X	Ū	X	_	E	
EXANE	X		X	E	Е	Х	E	E	Е	Х	Е	E	
EXANOL	С		G	G		Е	G	Е		Е		Е	
EXENE	Х		Х	G		Х	G	G		Х		E	
EXYL ALCOHOL	С		G	G		E	G	G		E		E	
EXYL METHYL KETONE	G			Х		Х		Х				E	
EXYLAMINE	G			С		С		С				E	
EXYLENE GLYCOL	E		С	E		E	E	E				E	
ISTOWAX		E											
YDRAULIC OIL, PETROLEUM		E	Х	G	E	Х	G	E	E		Х	E	
YDRAULIC FLUID (PHOSPHATE ESTER BASE)			E				Х						
YDRAULIC FLUID (POLYALKYLENE GLICOL BASE)	-		C	0	V	V	G	0	V	0		-	
YDRAZINE YDROBROMIC ACID	E	X	E	G E	Х	X	G	G X	X X	G X		E	F
YDROBROMIC ACID	E	X	C	C	С	C	X C	C X	C	X	E	E	
YDROCHLORIC ACID	G	X	E	E	X	G	G	G	X	G	E	E	
YDROFLUORIC ACID	G	X	C	E	X	C	C	C	X	C	X	E	
YDROFLUOSILICIC ACID	E	X	E	E	G	E	G	G	X	G	~	E	
YDROGEN CHLORIDE ANHYDROUS	L.	E	-	-	G	-	G	G		G		-	
YDROGEN DIOXIDE (10 %)	С	_	G	G		G	Х	С				Е	Г
YDROGEN GAS	E	С	E	E	Е	G	E	E	Е	G		E	
YDROGEN PEROXIDE 10 %	G		G	E	Х	G	X	С	G	C		E	
YDROGEN PEROXIDE OVER 10 %	X	Х	С	G	Х	Х	Х	X	Х	Х		E	

TH24



Chemical Resistance Table

Technical Handbook

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	MMHU
(DROGEN SULFIDE (WET)	E	Х	E	E	E	Х	Z E	С	Х	Х		E	E
YDROXY BENZENE	G	A	C	C	-	X	X	X	~	~		E	-
YDROXYISOBUTYRONITRILE		E											
YDROXYTOLUENE		Е											
IYVAR XL			E										
/INODI-2-PROPANOL		E											
/INODIETHANOL		E											
DDINE	G		G	G		Х	Х	G	E	G		E	G
DDINE PENTAFLUORIDE	Х		Х	Х		Х	Х	Х		Х		E	С
DOFORM			Х			Х	Х	E		Х			
OBUTANAL		G											
SOBUTANE							Х						E
SOBUTANOL (ISOBUTYL ALCOHOL)			E				E						E
SOBUTYL ACETATE			С										В
OBUTYLAMINE	E			С		С		Х				E	
SOBUTYLBROMIDE	X		-	X		Х	-	Х				E	
	E		E	E		E	E	E				E	_
SOBUTYLENE					0			0	0				E
SOCYANATES	V	E	V	0	G E	V	0	G E	G E	V	V	Е	E
	X	E	X	G	E	Х	G	E	E	Х	Х	E	
SOPROPANOL SOPROPYL ACETATE	G		E G	Х	С	V	E X	Х	G	Х		Е	E
SOPROPYLACETATE	E		G	X E	E	X	X G	X E	G	X E		E	E
SOPROPYL ALCOHOL	X		X	C	E	X	X	G	E	X		E	E
ET FUELS	X		X	X		X	X	E	С	X	х	E	E
P-4 OIL	X		X	X	E	X	X	E	C	X	X	E	E
EROSENE	X	G	X	X	E	X	C	E	E	X	X	E	Е
ETONES	G	G	Ē	C	X	C	X	X	E	G	X	E	E
ACQUER SOLVENTS	X	C	X	X	C	X	X	X	E	X	~	E	G
ACTIC ACID – COLD	E	X	Ē	Ē	X	Ē	Ē	Ē	E	E		E	E
ACTIC ACID - HOT		~	X	C	C	X	X	X	X	X		E	-
ARD	С		G	G	G	X	G	Ē	Ē	X	E	E	G
AVENDER OIL	X		X	X	u	X	X	G	L.	X	L	E	G
EAD ACETATE	E		Ē	C		E	G	G		X		E	E
EAD NITRATE	E		E	C		E	E	E		E		E	-
EAD SULFATE	E		E	E	G	E	G	E	G			E	E
IME	E		E	E	G	E	E	E	G			E	_
IME BLEACH	E		E	G	C.	E	G	E	0.	Е		E	
IME SULFUR, WET	E		C	G		С	E	E				E	E
IMONENE	X		X	Х		X	Х	Х				E	_
INOLEIC ACID	Х		Х	Х		Х	С	G		Х		E	
INSEED OIL	G	G	С	G	G	Х	E	E	Е	Х		E	E
IQUID PETROLEUM GAS							С						E
IQUID SOAP			E				E						В
UBRICATING OILS, SAE	Х	G	Х	Х	Е	Х	С	Е	Е	Х	Х	E	E
YE SOLUTIONS	E	С	E	E	С	E	E	С	G	G	С	E	
1EX	G	С	E	Х	С	Х	Х	Х	E	Х	Х	E	E
1AGNESIUM ACETATE	E		E	E		Х	Х	Х		Х		E	
IAGNESIUM CARBONATE			E				E						G
1AGNESIUM CHLORIDE	E	G	E	E	G	E	E	E	E	E		E	E
IAGNESIUM HYDRATE	E		E	E		E	G	G				E	E
IAGNESIUM HYDROXIDE	E	G	E	E	С	E	E	E	E	G		E	E
IAGNESIUM SULFATE	E	G	E	E	G	G	E	E	E	G		E	Е
IAGNESIUM SULFITE	E		E	E		G	E	E		G			
IALEIC ACID	Х		E	Х		Х	Х	С		Х		E	Е
IALEIC ANHYDRIDE	Х		Х	Х		Х	Х	Х		Х		E	
IALIC ACID	Х		Х	G		E	G	E	E	G		E	E
IANGANESE SULFATE	G		E	E		G	E	E				E	E
			G				E	E		G			
IERCURY	E	G	E	E	E	E	E	E	E	E		E	E
IERCURY VAPORS	E		E	E		С	С	E		E		E	
	С		G	Х		Х	Х	X		Х		E	E
IETHALLYL ALCOHOL	E			E		E		E				E	
		С					6						
IETHANE			Х				G						E
ETHANE CARBOXYLIC ACID							0		TIC AC				

TH25



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	UHMW
METHANOIC ACID	E	Х	E	E	С	С	E	С	Х	E	E	E	
METHANOL (METHYL ALCOHOL)	E	G	E	E	E	E	E	E	G	E	E	E	E
METHANOL (WOOD ALCOHOL)	E	G	E	E	E	E	E	E	G	E	E	E	E
METHOXY ETHANOL		E											
		E											
METHYL 1-2, 4-PENTANEDIOL METHYL ACETATE	G	E	G	С	С	х	С	х	Е	х		E	E
METHYL ACETOACETATE	G		G	X	U	X	X	X	E	~		E	E
METHYL ACETONE	G		E	X		c	X	X				E	E
METHYL ACETYLENE PROPADIENE	ŭ		G	~		0	E	E		G			
METHYL ACRYLATE			G										В
METHYL ACRYLATE STAB.			G										В
METHYL ALCOHOL	E	G	E	E	E	E	E	E	G	E	E	E	E
METHYL ALLYL ALCOHOL	E			E		E		E				E	
METHYL ALLYL CHLORIDE	F	С		Х		Х				Х			
METHYL AMYL CARBINOL	E			E		E		E				E	
METHYL BENZENE	X	С	X	Х	C	X	X	Х	E	X	X	E	0
METHYL BROMIDE	C		C	X	Х	Х	X	G	G	Х	Х	E	G
	X	E	X	X E	E	F	X	E	E	0	F	E	
METHYL BUTANOL METHYL BUTYL KETONE	E	E	E		E	E			E	G	E		-
METHYL BUTYL KETONE METHYL CARBITOL	E		E	X		X	Х	X C		Х		E	E
METHYL CELLOSOLVE	G		G	C		X	G	C		Х		E	E
METHYL CHLORIDE	X	С	X	X	Х	X	X	X	С	X	Х	E	E
METHYL CYANIDE	E	U	E	G	~	G	E	C	0	~	~	E	L
METHYL ETHYL KETONE	E	G	E	X	Е	X	X	X	G	Х	С	E	E
METHYL HEXANOL	E	0.	_	E	_	E	~	E	0.		Ū	E	E
METHYL ISOAMYL KETONE	_	С		_				_					
METHYL ISOBUTYL KETONE (MIBK)			G										G
METHYL METHACRYLATE	С		Х	Х		Х	Х	Х	С	Х	С	E	G
METHYL NORMAL AMYL KETONE	G			Х		Х		Х				E	
METHYL PROPYL ETHER	Х			G		Х		Х				E	
METHYL SALICYLATE	G		С			Х	Х	Х				E	
METHYL STYRENE		С											
METHYL SULFIDE	С			Х		Х		Х				E	
METHYL TERTIARY BUTYL ETHER	G	Х	-	-		-	Х	Х		Х		G	G
METHYL-1-PROPANOL METHYL-2-BUTANOL	E	E	E	E		E	E	G		E		E	
METHYL-2-BUTANONE	G	X	С	X	х	X	х	х	Е	X		Е	
METHYL-2-HEXANONE	G	Ĉ	U	X	~	X	~	~	E	X		E	
METHYL-2-PENTANOL	E	U	Е	E		G	Е	G		~		Е	
METHYL-2-PENTANONE	C	Х	G	X	Х	X	X	X	G	Х	Х	E	
METHYL-2-PROPEN-1-OL	E		E	E		G	E	G				E	
METHYL-3-PENTEN-1-ONE		С											
METHYL-4-ISOPROPYL BENZENE		С											
METHYLALLYL ACETATE	E			G		Х		Х				E	
METHYLAMYL ALCOHOL	E		E	E		G	E	G				E	
METHYLCYCLOHEXANE	X			Х		Х		Х				E	
METHYLENE BROMIDE	Х		Х	Х		Х	Х	Х				E	G
	X	0	C	Х	Х	Х	Х	Х	C	Х	Х	E	E
	E	G	E	X	E	X	Х	X	G	Х	С	E	E
	G		-	Х		X	-	X				E	
METHYLISOBUTYL CARBINOL METHYLISOBUTYL KETONE	E	V	E G	E X	V	G X	E X	G X	0	V	V	E	E
METHYLISOBOTYL KETONE	G	X X	C	X	X X	X	X	X	G E	X X	Х	E	E
METHYLLACTONITRILE	E	~	0	C	~	C	В	X	L.	~	E	E	
METHYLPHENOL	X		Х	C		X	X	X			L.	E	
METHYLPROPYL CARBINOL	E		~	E		E	~	E				E	
METHYLPROPYL KETONE	G		G	X		X	х	X		Х		E	
MIL-A-6091	E		E	E		E	E	G		E			
MIL-E-9500	E		E	E		E	E	E		E			
MIL-F-16884	X		Х	С		Х	С	E		Х			
MIL-F-17111	Х		Х	Х		Х	G	E		Х			
MIL-F-25558B	Х		Х	G		Х	G	Е		Х			
MIL-F-25576C	Х		Х	С		Х	С	E		Х			
	Х		Х	Х		Х	Х	E		Х			
MIL-F-7024A	~ ~												

-Parker

TH26



k

Chemical Resistance Table

Technical	Handbook
recrimeat	TIATIUDUUr

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	иним
IIL-G-10924B	X			G		×	Ž X	E		X			
IL-G-25013D	X		X X	G G		X	G	E		X			
/IL-G-25537A	X		X	G		X	G	E		X			
/IL-G-4343B	C		C	G		C	G	G		C			
/IL-G-5572	X		X	X		X	X	E		X			
/IL-G-7711A	X		X	X		X	X	E		X			
/IL-H-13910B	G		E	G		G	G	G		E			
/IL-H-19457B	E		E	X		X	X	X		X			
/IL-H-22251	E		E	G			G	G		G			
/IL-H-27601A	X		Х	С		Х	G	G		Х			
/IL-H-5606B	Х		С	G		Х	G	E		Х			
/IL-H-6083C	Х		X	G		С	G	E		Х			
/IL-H-8446B	X		Х	C		X	G	G		Х			
/IL-J-5161F	Х		Х	X		Х	Х	G		Х			
/IL-J-5624G (JP-3, JP-4, JP-5)	X		Х	Х		Х	Х	E		Х			
/IL-L-15016	X		Х	G		X	G	E		X			
/IL-L-17331D	X		X	G		X	G	E		X			
/IL-L-2104B	X		X	C		X	G	E		X			
/IL-L-21260	X		X	G		X	G	E		X			
/IL-L-23699A	X		X	C		X	C	G		X			
/IL-L-25681C	E		E	G		G	G	G		G			
/IL-L-3150A	X		Х	G		Х	G	E		Х			
/IL-L-3545B	X		Х	C		С	G	G		Х			
/IL-L-4339C	Х		Х	X		X	Х	E		Х			
/IL-L-6082C	X		Х	G		Х	G	E		Х			
/IL-L-6085A	X		X	X		X	X	G		X			
/IL-L-7870A	X		Х	Х		Х	G	E		Х			
/IL-L-9000F	X		Х	C		X	G	E		X			
/IL-L-9236B	X		Х	X		Х	Х	G		Х			
/IL-O-5606								E					
/IL-O-7808	Х		Х	Х		Х	Х	G		Х		Е	
/IL-P-27402	E		E	G			G	G		G		-	
/IL-S-3136B TYPE 1 FUEL	X		Х	G		Х	G	E		X			
/IL-S-3136B TYPE 2 FUEL	Х		Х	Х		Х	Х	С		Х			
/IL-S-3136B TYPE 3 FUEL	X		Х	Х		Х	Х	C		Х			
/IL-S-3136B TYPE 4 OIL, LOWSWELL	Х		Х	E		Х	E	Ē		Х			
/IL-S-3136B TYPE 5 OIL, MEDSWELL	X		Х	G		Х	G	E		Х			
/IL-S-3136B TYPE 6 OIL, HI SWELL	Х		Х	Х		Х	Х	E		Х			
/IL-S-81087	E		E	E		E	E	E		E			
/INERAL OIL	X	G	Х	E	Е	Х	E	E	Е	Х	Х	Е	Е
/INERAL SPIRITS	X	C.	X	G	-	X	X	E	-	X		E	E
10BILE HFA			Х					E	Е			E	_
IOLTEN SULFUR	G		E	Е		G	Е	G				E	х
IONOBUTYL ETHER	X		Х	X		X	C	C		Х		E	
IONO-CHLOROACETIC ACID	G	х	C	X	Х	C	E	X	Х	X	Х	E	
IONOCHLOROBENZENE	X		X	X	C	X	X	X	G	X	X	E	G
IONOCHLORODIFLUOROMETHANE	X	С	E	E	X	C	E	X	C.	E	X	E	0.
	G	Ū	G	C		G	G	G		G		E	Е
IONOETHYL AMINE	G		E	C		C	X	X		C		E	_
NONOMETHYLAMINE	C		E	C		C	C	G		Ū		E	
IONOVINYL ACETATE	0		G	U		U	Ū	0.				-	в
IORPHOLINE			X				Х	Х	Х			Е	5
NOTOR OIL			X	G	G		G	E	G			E	Е
ITBE	G	Х	~	G	G		X	X	ŭ	Х		G	G
IURIATIC ACID	C	X	С	С	С	С	C	C	Х	X	Е	E	E
IA-K	Ŭ	~	X	J	5	5	J	X	~	~	-	X	-
	X	Е	X	х	Е	Х	х	Ē	Е	G	х	Ē	Е
IAPHTHALENE	X	C	X	X	C	X	X	X	G	X	C	E	E
IAPTHENIC ACIDS	~	E	X	X	0	X	X	G	u	X	0	E	-
I-BUTANAL	G	L	G	C		X	C	X		~		E	
I-BUTYLAMINE	X		C	X		X	X	X		Х		E	
	^		U	X		X	^			~		E	
	V							X				E	
	X		_	X		X	V	X		V			
	E	-	E	Х	-	Х	Х	X	-	Х	-	E	
I-BUTYLCARBINOL	E	E	E	E	E	E	E	G	E	E	E	E	

Parker

TH27



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	
NEON GAS	E		E	E		E	E	E	E	E	E	E	
NEU-TRI	Х			Х		Х		Х				Е	
NICKEL ACETATE	E		E	Х		E	G	G		Х		E	E
IICKEL CHLORIDE	E	Х	E	E	С	E	G	E	С	E		E	I
ICKEL NITRATE	E		E	E		E	E	E				E	
ICKEL SULFATE	E	Х	E	E	С	G	E	E	С	G		E	
IETYLENE						E							
ITRIC ACID, 10 %	E	Х	E	G	С	Х	G	Х	С	Х	E	E	
	X	X	X	X	Х	X	X	Х	X	X		E	
ITRIC ACID, 13N + 5 %	X	X	X E	X	X	X	X	X	X	X X		E	
TRIC ACID, UP TO 25 % TRIC ACID, 25 % – 40 %	C	X	G	G C	X X	X X	X X	X X	X	X		E	
ITRIC ACID, 23 % - 40 %	X	X	X	X	X	X	X	X	X	X		E	E
ITRIC ACID, CONC (16N)	X	X	X	X	X	X	X	X	X	X	Х	E	
ITRIC ACID, RED FUMING	C	X	X	X	X	X	X	X	X	X	X	E	Г
ITRILOTRIETHANOL	G	~	E	E	X	G	X	C	~	G	~	E	
ITROBENZENE	G	С	X	X	X	X	X	X	С	X		E	Г
ITROETHANE	G	-	G	С		G	С	Х		G	Е	E	
ITROGEN	E		E	E		E	E	Е		E		E	Г
ITROMETHANE	G		G	С	С	G	Х	Х		С		Е	
ITROPROPANE			G										Г
ITROUS OXIDE GAS	E		E	E		E	G	Е	С			E	
-NONYL ALCOHOL	E			E		E		Е				E	Г
-OCTANE	Х		Х	Х		Х	С	Е		Х		E	
ONANOIC ACID	E			Х		Х		Е				E	Г
IONANOL	E			E		E		E				E	
I-SERV (75 % XYLENE)									E			E	
IUTO H			Х					E	E			E	
IYVAC LIGHT			E					Х	E			E	
)-AMINOTOLUENE		G											
OCTANOIC ACID	С			G		С		С				E	
OCTANOL	G		E	G		G	G	G		G		E	
OCTYL ACETATE	E			E		Х		Х				E	
CTYL ALCOHOL	G		G	G		G	G	G		G		E	F
	C			X		X		Х			_	E	
	E			C		С		C				E	
OCTYL CARBINOL OCTYLENE GLYCOL	E			E		E		E				E	
DIL-PETROLEUM	X	G	х	G	Е	X	G	E	G	х	С	E	E
DLEIC ACID	X	X	C	G	E	X	C	E	E	X	U	E	
DLEUM (FUMING SULFURIC ACID)	X	X	X	X	X	X	X	X	X	X		E	E
DLIVE OIL	G	~	G	G	~	X	G	E	E	X		E	
RTHO-DICHLOROBENZENE	X		X	X	Х	X	X	X	E	X	Х	E	Г
RTHO-DICHLOROBENZOL	X		Х	Х	Х	Х	Х	Х	E	Х	Х	E	
RTHOXYLENE	X	С	C	X	С	X	X	Х	G	X	X	E	Г
XALIC ACID	E	Х	E	Е	Х	С	G	G	G	G	Е	Е	
XYDIETHANOL		E											Г
XYGEN COLD			Е				Е						
ZONE	G		E	E	С	Х	С	Х	С	Х		E	Г
AINT THINNER	Х		Х	Х		Х	Х	Х	G	Х		Е	
ALM OIL													Г
ALMITIC ACID	G	G	G	С	E	E	G	E	С	В	E	E	
APERMAKERS ALUM	E			E		E	E	E				E	
ARA METHOXYPROPENYL BENZENE	Х	Х		Х		Х			G			E	
ARA-DICHLOROBENZENE	Х		Х	Х		Х	Х	Х		Х		E	
ARAFFIN WAX	Х		Х	Х		Х	G	E		E			
ARALDEHYDE	E		E	Х		С	С	С				E	
ARAXYLENE	Х		Х	Х		Х	Х	С				E	
CB												E	
	X	Х	Х	X		X	Х	Х		Х		E	
ELARGONIC ALCOHOL	E			E		E	N	E				E	
ENTACHLOROETHANE	Х	6		Х		Х	Х	Х				E	ſ
		G				N.	-	~				-	
ENTAMETHYLENE	X		X	X	~	X	E	G	0	V		E	F
ENTANE	X		X	C E	G	Х	C	E	G	Х		E	
ENTANOL			E E	E E		E	E	E				E	

TH28



Chemical Resistance Table

Technical Handbook

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	UHMW
ENTANONE	G		G	Х		Х	Z X	Х				E	
ENTASOL	E		E	Ē		E	Ē	G		G		E	
PENTYL ACETATE	G		E	X	С	X	X	X	G	X	Х	E	
ENTYL ALCOHOL	E	Е	E	E	E	E	E	G	E	E	E	E	
ENTYL BROMIDE	_	_		_	_			-				E	
PENTYL CHLORIDE	Х	С	Х	Х		Х	Х		Е	Х		Е	
PENTYL ETHER				С				С				Е	
ENTYLAMINE	G		Х	С		С	Х	С				E	
PERCHLORIC ACID-2N	G		G	G	Х	Х	G	Х	Х	Х	Х	E	
PERCHLOROETHYLENE	Х	С	Х	Х	Х	Х	Х	С	С	Х	Х	E	G
PERCHLOROMETHANE	Х					Х	Х	Х				E	
PETROLEUM CRUDE	X		Х	G	С	Х	G	E	G	Х		E	E
PETROLEUM ETHER	Х		Х	Х		Х	С	E	E	Х		E	
PETROLEUM OILS	X	G	Х	G	E	Х	G	E	G	Х	С	E	E
PHENBO												-	E
PHENOL	G			Х	Х	Х	Х	X	Х	Х	Х	E	E
PHENOLSULFONIC ACID	C		0	X		Х	V	X				E	G
PHENYLAMINE	E		G	X		X	X	X				E	
PHENYLBROMIDE	Х	С	Х	Х		Х	Х	Х				E	
	V	U	v	V		V	V	V				E	
PHENYLCHLORIDE PHENYLETHYLENE	X		X	X X	Х	X	X X	X X		Х		E	
PHENYLMETHANE	X		X	X	~	X	X	X		~		E	
PHENYLMETHAND	G		G	G	С	X	X	X	С	Х	Х	E	Е
PHENYLMETHYL ACETATE	E		G	G	U	X	~	~	U	Λ	~	E	E
PHOSPAHTE ESTERS	E	G	E	X	С	X	Х	Х	Е	Х	Е	E	L.
PHOSPHORIC ACID 10 %	G	X	E	E	U	~	E	E	E	G	E	E	Е
PHOSPHORIC ACID 10 % - 85 %	G	X	E	E	Х	G	E	X	C	G	_	E	E
PHOSPHORUS TRICHLORIDE ACID	E		Е	Х		Х	Х	Х		Х		Е	
PHTALIC ANHYDRIDE			E				Е						
PICRIC ACID, H2O SOLUTION	С	Х	С	Е	Х	С	С	С	Х	G	Х	С	
PINE OIL	Х		Х	Х		Х	Х	G		Х		Е	E
PINENE	Х		Х	Х		Х	Х	G		Х		Е	E
POLY CHLORINATED BIPHENOL												E	
POLYETHYLENE GLYCOL E-400	E	E		E		E				Е			Е
POLYOL ESTER					Х		G		G				
POLYPROPYLENE GLYCOL	E			E		E		E				E	
POLYVINYL ACETATE EMULSION (PVA)			E				G						В
POTASSIUM ACETATE	E		E	С		E	G	G	G	Х		E	E
POTASSIUM BICARBONATE			E				E						E
POTASSIUM BISULFATE	E		E	E		E	E	E	G	G		E	E
POTASSIUM BISULFITE	E		E	E		E	E	E	G	G		E	E
POTASSIUM CARBONATE	E		E	E	Х	E	E	E	С	E		E	E
POTASSIUM CHLORIDE	E	G	E	E	G	E	E	E	E	E		E	E
	G	0	E	C	0	G	E	E	G	G		E	G
POTASSIUM CYANIDE	E	G X	E	E	G	E	G E	E	E	E		E	E G
POTASSIUM DICHROMATE	E	~	E G	E		C G	G	G	G G	G G		E	G
POTASSIUM HYDRATE	G	х	E	E	С	G	G	G	G	G	G	E	G
POTASSIUM NITRATE	E	~	E	E	G	E	E	E	G	E	u	E	E
POTASSIUM PERMANGANATE 5 %	E		E	G	X	E	E	C	X	G		E	E
POTASSIUM SILICATE	E		E	E	~	E	E	E	G	E		E	-
POTASSIUM SULFATE	E		E	E	G	E	E	E	E	G		E	Е
POTASSIUM SULFIDE	E		E	E	9	G	E	E	E	G		E	E
POTASSIUM SULFITE	E		E	E		G	E	E	E	G		E	
PRESTONE ANTIFREEZE	E	G	E	E	G	E	C	E	G	E	Е	E	
PRODUCER GAS	x		X	G		X	G	E		X		E	
PROPANEDIOL	С		Е	E		Е	С	Е		Е		Е	
ROPANETRIOL	E	E	E	E	E	E	E	E	G	E	Х	Е	
PROPANOL	E		Е	Е		Е	Е	Е		Е	Е	Е	
PROPANOLAMINE		E											
ROPANONE	E	G	E	Х	С	С	Х	Х	E	С	E	Е	
PROPEN-1-OL	E		E	E		E	E	E				E	Е
PROPENEDIAMENE		E											
PROPENENITRILE	X					G E	Х	Х				Е	

-Parker

TH29



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	NMHU
PROPENYLANISOLE	Х			Х		Х		Х				E	
PROPIONIC ACID	E		E	G		E	С	С		Х		E	
PROPIONITRILE	E		E	X		E	G	Х		V	Х	E	-
PROPYL ACETATE	G		E	X E		X E	X E	X E		X	Е	E	E
PROPYL ALCOHOL PROPYL ALDEHYDE	G		E	X		C	E	X		E	E	E	E
PROPYL BENZENE	u	С		~		U		~				L	L
PROPYL CHLORIDE	С	U		Х		Х		Х				Е	Е
PROPYL ETHER		Е										-	
PROPYL NITRATE	G		G	Х		Х	Х	Х		Х		E	
PROPYLENE	Х		Х	Х		Х	Х	Х		Х		E	
PROPYLENE DIAMINE	E			С		G		G				E	
PROPYLENE DICHLORIDE						_							С
PROPYLENE GLYCOL	С		E	E		E	С	E		E		E	E
PYDRAUL, 'E' SERIES	G		G X	X X	G C	X X	X X	X X	G E	X	E	E	E
PYDRAULIC 'C' PYBIDINE	~		G	~	U	~	~	~	E	~	E	E	C
PYROLIGNEOUS ACID			G										C G
RESIN OIL			G				х						В
QUINTOLUBRIC 822 SERIES	Х		Х			Х	X	G					_
RED OIL	Х	Х	С	G	E	Х	С	Е	E	Х		E	
REFRIGERANT 11	Х		Х	E	Е	Х	Х	G		Х		E	
REFRIGERANT 12	С	С	С	E	E	С	Е	Е	G	E	Х	E	
REFRIGERANT 22	Х	С	E	E	Х	С	E	Х	G	E	Х	E	
RESORCINOL			G		Х		Х		Х	G	Х	E	
SAE NO. 10 OIL	Х	G	X	X	E	X	С	E	E	X	Х	E	
	E	G	E	E	E	E	E	E	C	E	-	E	-
SEA WATER SEWAGE	E		E	E	E G	E G	G G	E	E	E G	E G	E	E
SILICATE ESTERS	C		X	G	C	X	E	G	G	X	G	E	E
SILICATE OF SODA	E		E	E	U	E	E	E	G	~		E	
SILICONE GREASE	E		E	E	Е	E	E	E	Е	Е		E	
SILICONE OIL	E		Е	Е	G	С	Е	Е	Е	E		Е	E
SILVER NITRATE	E		E	E		Е	Е	G	E	Е		E	Е
SKYDROL 500 TYPE 2	G	G	E	Х	G	Х	Х	Х	G	Х	E	E	
SKYDROL 500B	G	G	E	Х	E		Х		E		E	E	
SKYDROL 500C	G	G		Х	E		Х					E	
SKYDROL 7000 TYPE 2	E	G	E	Х	Х	X	X	Х	E	X	-	E	-
SOAP SOLUTIONS	G	G	E	E	E G	G E	G E	E	E G	G E	E	E	E
SODA ASH SODA LIME	E	G	E	G	G	E	G	G	G	E		E	E
SODA LIME SODA NITER	E	G	E	E	G	G	G	G	E	G		E	L
SODA, CAUSTIC	E	C	E	E	C	G	E	C	G	E	С	E	Е
SODIUM ACETATE	E		E	С		E	G	G	G	Х		E	E
SODIUM ALUMINATE	E		E	E		G	Е	Е	G	G		E	E
SODIUM BICARBONATE	E		E	E	G	E	Е	Е	E	E		E	E
SODIUM BISULFATE	E	Х	E	E	С	E	E	G	С	G		E	E
SODIUM BISULFITE	E		E	E	G	E	E	E	E	G		E	E
SODIUM BORATE	E		E	E	G	E	E	E	E	E		E	E
SODIUM CARBONATE 10 % - 15 %	G	G	E	E	G	E	E	E	G	E		E	E
	0	0	E	-	-	-	-	F	0	-	С	-	-
SODIUM CHLORIDE SODIUM CYANIDE	G	G G	E	E	E G	E	E	E	G E	E	U	E	E
SODIUM DICHROMATE	E	u	C	G	u	X	C	E	G	G		E	E
SODIUM FLUORIDE	L.		E	G		~	E	L	u	G		-	C
SODIUM HYDRATE	Е		E	G		Е	G	G	G	G		E	
SODIUM HYDROCHLORITE	G		G	E		С	С	С	G	G		E	
SODIUM HYDROXIDE (CAUSTIC SODA)	Е	С	E	E	С	Е	G	С	G	G	С	E	E
SODIUM HYPOCHLORITE	G	Х	G	G	С	Х	С	Х	Х	С	С	E	E
SODIUM METAPHOSPHATE	G		E	G		E	G	E	E	E		E	E
SODIUM NITRATE	E	G	E	E	G	G	G	G	E	G		E	E
SODIUM PERBORATE	E	X	E	G	G	G	G	G	E	G		E	E
SODIUM PEROXIDE	E	Х	E	G E	G	G E	G	G E	X	G		E	E
	E E		E	E	G	E	С	E	С	E		E	E
SODIUM PHOSPHATE		C		F	G	F	F	F	F	F		F	F
SODIUM PHOSPHATE SODIUM SILICATE SODIUM SULFATE	E	G G	E	E	G G	E G	E	E	E	E G		E	E

TH30



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	MMHU	
SODIUM SULFIDE	E	G	E	E	G	G	E	E	E	G		E		
SODIUM SULFITE	E		Е	E		G	Е	E	Е	G		Е	Е	
SODIUM THIOSULFATE	E		E	E		E	E	E	G	G		E	Е	
SOYBEAN OIL	С	G	Х	E	G	Х	E	E	E	Х		E	E	
STANNIC CHLORIDE	G	Х	E	С	G	G	С	E	С	E		E	Е	
STANNIC SULFIDE	E			E		E		E				E		
STANNOUS CHLORIDE	G		С	E	G	E	E	E	С	E		E	E	
STANNOUS SULFIDE	E			E		E		E				E		
STEARIC ACID	G	G	G	С	G	С	G	E	E	G	E	E	E	
STODDARD SOLVENT	Х	G	Х	Х	E	Х	С	E	E	Х	Х	E	E	
STYRENE MONOMER	Х		Х	Х	Х	Х	Х	Х		Х		E	G	
SULFAMIC ACID	E		Х	E		G	G	С				E		
SULFUR	F		F	F		Х	Х	Х		Х		E	E	
SULFUR CHLORIDE	Х	G	X	С	С	Х	С	С	С	Х		E	E	
SULFUR DIOXIDE	G		E	С	Х	С	Х	Х	Х	С		E	G	
	G		G	С	X	С	X	X	v	X		E	X	
SULFURIC ACID 60 % +93 °C (+200 °F)	X	X	X	F	X	0	X	Х	X	X	Е	F	Х	
SULFURIC ACID, 25 %	G	X		E		G		E	X	G	E	E	E	
SULFURIC ACID, 25 % – 50 % SULFURIC ACID, 50 % – 96 %	G	X	E G	G C	G X	G X	E C	E C	X X	G X		E	E	
SULFURIC ACID, 30 % - 90 % SULFURIC ACID, CONC. 96 % - 98 %	X	X	X	X	X	X	X	X	X	X		E	E	
SULFURIC ACID, FUMING	X	X	X	X	X	X	X	X	X	X		E	X	
SULFURIC ACID, FOMING SULFUROUS ACID, 10 %	Ē	X	Ē	Ē	C	G	G	C	C	G		E	Ē	
SULFUROUS ACID, 10 % – 85 %	E	X	G	E	C	G	C	C	X	C		E	E	
SUTAN		~	G		Ŭ	G	Ŭ	Ŭ	~	Ŭ		E	-	
TALL OIL	Х		Х	С		Х	С	E		Х		E	Е	
TALLOW	G		E	C		C	G	E		X		E	E	
FANNIC ACID	E	Х	E	E	G	E	E	E	G	G	Е	E	E	
TAR, BITUMINOUS	X	G	Х	С	G	C	C	G	G	X	_	E		
TAR, CAMPHOR	Х	C	Х	X	C	X	X	X	G	Х	С	E	Х	
TARTARIC ACID	G	Х	С	E	G	E	Е	Е	E	G	E	E	E	
T-BUTYL AMINE			G	Х										
TELONE 2														
TERPINOL	С	E	С	Х		Х	Х	G		Х		Е	G	
TERTIARY BUTYL ALCOHOL	G		G	G		G	G	G		G		E	E	
TERTIARY BUTYL AMINE			G	X										
TERTIARY BUTYL MERCAPTAN	Х		Х	Х		Х	Х	Х		Х		E		
TETRACHLOROBENZENE	Х			X		Х		Х				E		
[ETRACHLOROETHANE	Х		Х	X		Х	Х	Х		Х	С	E	С	
[ETRACHLOROETHYLENE	Х		Х	X		Х	Х	С	С	Х		E	G	
TETRACHLOROMETHANE	Х		Х	Х		Х	Х	Х				E		
TETRACHLORONAPHTHALENE	Х			Х		Х		Х				E		
TETRAETHYLENE GLYCOL	E			E		E		E				E		
TETRAETHYLORTHOSILICATE	E					Х	Х	Х				E		
TETRAHYDROFURAN	G		Х	Х	С	Х	Х	Х	G	Х	Х	E	G	
	G		X	X	С	X	Х	X	G	Х	Х	E	G	
TIN CHLORIDES	G		E	E		E	С	E				E	E	
TITANIUM TETRACHLORIDE	X	-	Х	Х		Х	Х	С	-	Х		E	G	
	Х	С	X	Х	С	Х	Х	Х	E	Х	Х	E	E	
FOLUENE DIISOCYANATE (TDI)			E									-	В	
TOLUIDINE	Х	~	V	X	0	X	X	X	-			E		
	X	С	X	X	С	X	X	Х	E	X	Х	E	-	
	X		X	C	~	X	G	E	~	X		E	E	
	X		X	G	G	X	G	E	G	X		E		
TRI (2-HYDROXYETHYL) AMINE	G		E	E C	Х	G G	Х	C		G		E		
			E		C		v	G	G	v		E	Е	
IRIBUTYL PHOSPHATE	G		E G	X C	C X	C C	X	X C		X X		E	E	
RICHLOROBENZENE	X		G	X	~	X	X X	X	Х	X		E	C	
I RICHLOROBENZENE IRICHLOROETHANE	X		Х	X		X	X	X	Х	X		E		
I RICHLOROETHANE	X	С	X	X	Х	X X	X X	X	C X	X X	х	E	G	
I RICHLOROETHYLENE I RICHLOROMETHANE	X	X		X	X	X	X	X	C	X		E	G	
I RICHLOROME I HANE	~	~	Х	~	~	~	~	X	U	~	Х	E		
I RICHLOROTOLOENE IRICRESYL PHOSPHATE	E		E	Х	С	С	С	X	G	Х		E	E	
I RICRES Y LI PHOSPHATE TRIETHANOLAMINE	G		E	E	X	G	X	C	G	G		E	E	
RIETHANOLAMINE	C		E	C .	^	G	G	E		X		E	L	
			E			G	G			~				

-Parker

TH31



Chemical Resistance Table

Chemical or Material Conveyed	Butyl	CPE	EPDM	CSM	трс-ет	Natural	Neoprene	Nitrile	Nylon	SBR	ТРV	PTFE	NMHU
				E			z	- E				E	
TRIETHYLENE GLYCOL	E		G	G	V	E	G	E G	0	G		E	
TRIHYDROXYBENZOIC ACID		-			X				G		N		
TRIMETHYL PENTANES (MIXED)	X	E	Х	С	E	Х	С	E	E	Х	Х	E	
		E										-	-
		E					0					E	E
TRINITROTOLUENE (TNT)	_		_	_	-	_	G	_	_	-		-	
TRISODIUM PHOSPHATE	E		E	E	E	E	E	E	E	E		E	
TRITOYL PHOSPHATE	E		E	Х	С	Х	Х	Х	G	Х		E	
TUNG OIL	Х	С	Х	E	G	Х	E	E	G	Х		E	E
TUNG OIL (CHINA OIL)	С	С	Х	E	G	Х	E	E	G	Х		E	E
TURBINE OIL			Х				С						В
TURPENTINEX	Х	G	Х	Х		Х	Х	Х	E	Х	Х	E	G
UDMH	E		E	E		E	G	G		Х		E	
UNDECYL ALCOHOL	E			E		E		E				E	
UREA	E		E	E	G	E	G	G	E			E	E
URETHANE FORMULATIONS								E	E			E	
URIC ACID					Х				G		E	E	
VARNISH	Х	С	Х	Х		Х	Х	G	E	Х		E	
VEGETABLE OILS	С		С	G		Х	С	E	G	Х		E	E
VERSILUBE F44	E		E	Е		E	E	E	E	E		E	
VERSILUBE F55	E		Х	Е		E	E	E	E	E		E	
VINEGAR	E		E	Е	С	G	G	G	E	G		E	Х
VINEGAR ACID		G											
VINYL ACETATE	E		G	С		Х	Х	Х		Х		Х	Е
VINYL BENZENE	X		X	X	Х	Х	Х	Х		Х		E	E
VINYL CHLORIDE (GAS)	X		G			G						E	E
VINYL CYANIDE	X	Е	X	С		C	С	Х	Е	С	Х	F	-
VINYL ETHER	X		~	G		X	Ŭ	G		Ŭ	~	E	Е
VINYL STYRENE	X			X		X		0.		Х		E	E
VINYL TOLUENE	X			X		X		Х		~		E	E
VINYL TRICHLORIDE	X			X		X	х	X				E	E
VITAL, 4300, 5310	~		Х	~		~	~	X	Е			E	L
VM&P NAPHTHA	X		X	х		х	С	C	L.			E	
WATER	E	G	Ē	Ē	Е	E	G	E	E	G	E	E	Е
	E	G	E	E	C	L	G	G	X	G	G	G	X
WATER, BOILING WATER, SODA	E		E	E	E		G	G	Ē	G	E	E	^
WENCO C	V		х	х	E	х	G	Е	E	х	E	E	
WHISKEY	X		Ē	Ē	G	Ē	E	E	E	Ē		E	Х
WHISKET WHITE OIL			X	X	G	X	G	E	E	X		E	Ē
	X							G				E	E
WHITE PINE OIL	X		Х	Х	-	X	Х		-	X		-	
WINES	E		E	E	G	E	E	E	E	E		E	X
WOOD ALCOHOL	E		E	E		E	E	E		E		E	E
WOOD OIL	С		X	С	G	Х	G	E	G	X		E	E
XENON	E		E	E		E	E	E		E		E	
XYLENE, XYLOL	X	С	X	Х	С	Х	Х	Х	G	X	Х	E	C
XYLIDINE	G		С	Х		Х	Х	С		Х		E	G
ZEOLITES	E		E	E		E	E	E		E			
ZINC ACETATE	E		E	С		E	G	G		Х		E	
ZINC CARBONATE	E		E	Е		E	E	E				E	E
ZINC CHLORIDE	E	Х	E	Е	E	E	E	E	E	E		E	E
ZINC CHROMATE	E			С								E	
ZINC SULFATE	E	Х	F	E	С	E	E	E	X	G		E	E

E = excellent; G = good; C = conditional; X = unsatisfactory

* compounds not in catalogue. Ask Parker for right solution

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

hymatik

Technical Handbook

Chemical Resistance Guide for Silicone Hose

B C I

X C A A A B A A A I

A C C A A A A A X X X X X X I

A A A A X X X A A B A X X X C C B C X X X X X A A A A A I C X X X X A X B X I C A X X

Acetic acid glacial Acetic acid anhydride Acetylene Air 68 °F (20 °C) Air 150 °F (65 °C) Aluminum chloride 150 °F (65 °C) Aluminum sulfate 150 °F (65 °C) Ammonia 30% water solution Ammonia 30% water solution Ammonia 30% water solution Ammonium chloride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate tribasic Ammonium phosphate tribasic Ammonium sulfate Amyl acetate Amyl acetate Amyl acetate Amyl acetate Saphalt Barium chloride 150 °F (65 °C) Barium hydroxide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfate 150 °F (60 °C) Hydrogen sulfate 150 °F (60 °C) Hydrogen sulfate, wet	Chemical
Acetic acid anhydride Acetylene Air 68 °F (20 °C) Air 150 °F (65 °C) Aluminum chloride 150 °F (65 °C) Aluminum sulfate 150 °F (65 °C) Ammonia gas, anhydrous Ammonia 10%water solution Ammonium chloride Ammonium chloride Ammonium chloride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate dibasic Ammonium phosphate dibasic Ammonium sulfate Amy lacetate Amy lacetate Amy lacohol Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfate 150 °F (65 °C) Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfate, dry	
Acetone Acetolylene Air 150 °F (65 °C) Aluminum chloride 150 °F (65 °C) Aluminum sulfate 150 °F (65 °C) Ammonia 30% water solution Ammonia 10% water solution Ammonia 30% water solution Ammonium chloride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate tribasic Ammonium sulfate Amy alacohol Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C)	Acetic acid glacial
Acetylene Air 68 °F (20 °C) Air 150 °F (65 °C) Aluminum chloride 150 °F (65 °C) Aluminum sulfate 150 °F (65 °C) Aluminum sulfate 150 °F (65 °C) Aluminum sulfate 150 °F (65 °C) Ammonia 10% water solution Ammonia 10% water solution Ammonia 10% water solution Ammonium chloride Ammonium hydroxide Ammonium phosphate solution Ammonium phosphate dibasic Ammonium phosphate dibasic Ammonium phosphate dibasic Ammonium phosphate tribasic Ammonium sulfate Amyl acetate Amyl alcohol Aniline, Aniline oil Aniline, Aniline oil Aniline, dyes Asphat Barium chloride 150 °F (65 °C) Barium sulfate 150 °F (65 °C) Barine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butane Butyl acetate Butyl aceta	
Air 68 °F (20 °C)Air 150 °F (65 °C)Aluminum chloride 150 °F (65 °C)Aluminum fluoride 150 °F (65 °C)Aluminum sulfate 150 °F (65 °C)Aluminum sulfate 150 °F (65 °C)Ammonia gas, anhydrousAmmonia 09%water solutionAmmonia 10%water solutionAmmonia 30%water solutionAmmonium chlorideAmmonium hydroxideAmmonium phosphate monobasicAmmonium phosphate tribasicAmmonium phosphate tribasicAmmonium phosphate tribasicAmmonium phosphate tribasicAmy acetateAmyl accholAniline, Aniline oilAniline, Aniline oilAniline, dyesAsphaltBarium chloride 150 °F (65 °C)Barium bydroxide 150 °F (65 °C)Barium sulfide 150 °F (65 °C)Berzine, petroleum enterBenzine, petroleum enterBenzine, petroleum naphthaBlack sulfate liquorBlast furnace gasBoric acidBromineButyl acetateButyl acetateButyl accol, ButanolCalcium bisulfateFormaic acidFormic acidFurfuralGasoline, unleadedGasoline, unleadedGasoline, unleadedGasoline Hi Test + MTBEGelatinGlucoseGlueHydraulic fluids: Phosphate ester allylHydraulic fluids: Phosphate ester allylHydraulic fluids: Phosphate ester allylHydraulic fluids: Silicate esterHydraulic fluids: Phosphate ester allyl<	
Air 150 °F (65 °C)Aluminum fluoride 150 °F (65 °C)Aluminum sulfate 150 °F (65 °C)Aluminum sulfate 150 °F (65 °C)Ammonia 10% water solutionAmmonia 10% water solutionAmmonia 30% water solutionAmmonia 10% water solutionAmmonium hydroxideAmmonium hydroxideAmmonium hydroxideAmmonium hydroxideAmmonium phosphate monobasicAmmonium phosphate dibasicAmmonium phosphate dibasicAmmonium phosphate dibasicAmmonium by Solate tribasicAmmonium by Solate tribasicAmmonium sulfateAnyl alcoholAniline, Aniline oilAniline, dyesAsphaltBarium chloride 150 °F (65 °C)Barium sulfide 150 °F (65 °C)Berzine, petroleum etherBenzine, petroleum etherBenzine, petroleum naphthaBlack sulfate liquorBlast furnace gasBoric acidBromineButyl acetateButyl acetateButyl acetateButyl acetateButyl acetateButyl acetateButyl acetateButyl acetateGasoline, unleadedGasoline, inflate: Phosphate ester	
Aluminum chloride 150 °F (65 °C) Aluminum sulfate 150 °F (65 °C) Alums 150 °F (65 °C) Ammonia gas, anhydrous Ammonia 10% water solution Ammonia 30% water solution Ammonium chloride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate dibasic Ammonium phosphate dibasic Ammonium phosphate tribasic Ammonium sulfate Amy lacetate Amy lacetate Amy lacohol Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Berzine, petroleum aphtha Black sulfate liquor Bats furnace gas Boria acid Bromine Butyl acetate Butyl acetate Butyl acohol, Butanol Calcium bisulfate Formaldehyde Formic acid Furfural Gasoline, unleaded Gasoline, unleaded Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester allyl Hydraulic fluids: Phosphate ester allyl Hydrochloric acid Hydrochloric acid Hydrogen peroxide Hydrogen peroxide Hydrogen peroxide	
Aluminum sulfate 150 °F (65 °C) Alums 150 °F (65 °C) Ammonia gas, anhydrous Ammonia 10%water solution Ammonium chloride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate dibasic Ammonium phosphate dibasic Ammonium phosphate tribasic Ammonium sulfate Amyl acetate Amyl alcohol Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum anphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butane Butyl acetate Butyl acetate Butyl acetate Butyl acetate Gasoline, unleaded Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydrochoric acid Hydrofluoric acid Hydrofluoric acid Hydrofluoric acid Hydrogen peroxide Hydrogen peroxide	
Alums 150 °F (65 °C) Ammonia gas, anhydrous Ammonia 10%water solution Ammonium chloride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate dibasic Ammonium phosphate tribasic Ammonium phosphate tribasic Ammonium phosphate tribasic Ammonium phosphate tribasic Ammonium sulfate Amyl acetate Amyl acetate Anyl acetate Anyl acetate Anyl acetate Anyl acetate Anyl acetate Anyl acetate Applat Barium chloride 150 °F (65 °C) Barium bydroxide 150 °F (65 °C) Bare sugar liquors Beer Beer sugar liquor Benzine, petroleum enther Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Boric acid Bromine Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acolnol, Butanol Calium biulfate Formaic a	
Ammonia gas, anhydrous Ammonia 10%water solution Ammonium chloride Ammonium nhydroxide Ammonium phosphate monobasic Ammonium phosphate dibasic Ammonium phosphate tribasic Ammonium phosphate tribasic Ammonium sulfate Amyl acetate Amyl acetate Amyl acetate Amyl acetate anyl acetate Amyl acohol Aniline, Aniline oil Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum ther Bariae, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boria acid Bromine Butya acetate Butyl acotate Butyl acohol, Butanol Calcium bisulfate Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Silicate ester Hydray Photoric acid Hydrofouroic acid Hydrofouroic acid Hydrogen peroxide	
Ammonia 10%water solution Ammonium chloride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate monobasic Ammonium phosphate tribasic Ammonium phosphate tribasic Ammonium sulfate Amy lacotate Amyl alcohol Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Boria acid	
Ammonia 30% water solution Ammonium holoride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate dibasic Ammonium phosphate dibasic Ammonium phosphate tribasic Ammonium sulfate Amyl acetate Amyl alcohol Aniline, Aniline oil Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butane Butyl acetate Butyl acet	
Ammonium chloride Ammonium hydroxide Ammonium phosphate monobasic Ammonium phosphate dibasic Ammonium phosphate dibasic Ammonium sulfate Amyl acetate Amyl acetate Amyl acetate Amyl acetate Amyl acetate Anjline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium hydroxide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Formic acid Formic acid Formic acid Formic acid Gasoline, unleaded Gasoline, unleaded Gasoline H TBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrogen peroxide Hydrogen sulfide, dry	
Ammonium nitrate Ammonium phosphate monobasic Ammonium phosphate dibasic Ammonium sulfate Amyl acetate Amyl acetate Amyl acetate Aniline, Aliline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Berzine, petroleum ather Benzine, petroleum aphtha Black sulfate liquor Bast furnace gas Borax Boria acid Bromine Butya acetate Butyl acetate Butyl acohol, Butanol Calcium bisulfate Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline, unleaded Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochloric acid Hydrofuoric acid Hydrogen peroxide	
Ammonium phosphate monobasic Ammonium phosphate tribasic Ammonium sulfate Amyl acetate Amyl alcohol Aniline, Aniline oil Aniline, Aniline oil Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzene, Benzol Benzene, petroleum naphtha Blast furnace gas Borax Boria acid Bromine Butane Butyl acetate Butyl acetate Gasoline, unleaded Gasoline, unleaded Gasoli	
Ammonium phosphate dibasic Ammonium phosphate tribasic Amyl acetate Amyl alcohol Aniline, Aniline oil Aniline, Anile oil Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum naphtna Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline, unleaded Gasoline et MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Mater glycol Hydrobromic acid Hydrofluoric acid Hydrofluoric acid Hydrofluoric acid Hydrogen peroxide	
Ammonium phosphate tribasic Ammonium sulfate Amyl acetate Amyl alcohol Aniline, Aniline oil Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium hydroxide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butane Butyl acetate Butyl alcohol, Butanol Calcium bisulfate Formaldehyde Formic acid Formic acid Gasoline, unleaded Gasoline, unleaded Gasoline H ITBE Gasoline HITBE Gelatin Glucose Glue Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochoric acid Hydrofuoric acid Hydrofuoric acid Hydrogen peroxide	
Ammonium sulfate Amyl acetate Amyl acetate Amyl acohol Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum aphtha Black sulfate liquor Blast furnace gas Borax Boria acid Bromine Butyl acetate Butyl acetate Butyl acohol, Butanol Calcium bisulfate Formaldehyde Formic acid Furfural Gasoline, unleaded Gasoline, unleaded Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochoric acid Hydrofluosilicic acid Hydrogen peroxide Hydrogen sulfide, dry	
Amyl acetate Amyl alcohol Aniline, Aniline oil Aniline, Aniline oil Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Blast furnace gas Borrax Boric acid Bromine Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acohol, Butanol Calcium bisulfate Formic acid Furfural Gasoline, unleaded Gasoline, unleaded Gasoline + MTBE Gelatin Glucese Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl	
Aniline, Aniline oil Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium hydroxide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butyl acetate Butyl alcohol, Butanol Calcium bisulfate Formic acid Formic acid Butyl alcohol, Butanol Calcium bisulfate Formaldehyde Formic acid Gasoline, unleaded Gasoline, unleaded Gasoline H ITBE Gasoline HI Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydrobloric acid Hydrochloric acid Hydrochloric acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	Amyl acetate
Aniline, dyes Asphalt Barium chloride 150 °F (65 °C) Barium hydroxide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butya acetate Butyl acetate Butyl acetate Butyl acotal, Butanol Calcium bisulfate Formaldehyde Formic acid Formic acid Gasoline, unleaded Gasoline, unleaded Gasoline H ITBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochoric acid Hydrofuoric acid Hydrofuoric acid Hydrofuoric acid Hydrofuoric acid Hydrogen peroxide	
Asphalt Barium chloride 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boria acid Bromine Butyl acetate Butyl acetate Butyl acetate Butyl alcohol, Butanol Calcium bisulfate Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline, unleaded Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydrochloric acid Hydrochoric acid Hydrofuosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Barium chloride 150 °F (65 °C) Barium hydroxide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butane Butyl acetate Butyl acetate Butyl acetate Butyl acetate Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline, Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Mater glycol Hydrochloric acid Hydrochoric acid Hydrofluosilicia acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Barium hydroxide 150 °F (65 °C) Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Guty alcohol, Butanol Calcium bisulfate Formic acid Formic acid Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester blends Hydraulic fluids: Shosphate ester blends Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydrochloric acid Hydrochoric acid Hydrofluoric acid Hydrofluoric acid Hydrogen gas 140 °F (60 °C) Hydrogen suffice, dry	
Barium sulfide 150 °F (65 °C) Beer Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butya acetate Butyl acetate Butyl acetate Butyl acotol, Butanol Calcium bisulfate Formaldehyde Formic acid Formic acid Gasoline, unleaded Gasoline, unleaded Gasoline, unleaded Gasoline H ITES + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydroshoric acid Hydrofuoric acid Hydrofuoric acid Hydrofuoric acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Beet sugar liquors Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butane Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline + MTBE Gasoline, unleaded Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester allyl Hydraulic fluids: Phosphate ester allyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochloric acid Hydrofuoric acid Hydrofuoric acid Hydrofuoric acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Benzene, Benzol Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butane Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acohol, Butanol Calcium bisulfate Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline, unleaded Gasoline H ITBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrobromic acid Hydrofluoric acid Hydrofluoric acid Hydrofluoris acid Hydrogen gas 140 °F (60 °C) Hydrogen sulfide, dry	Beer
Benzine, petroleum ether Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Butyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Gasoline, butyl acetate Formic acid Formic acid Furfural Gasoline, unleaded Gasoline, unleaded Gasoline + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraothoric acid Hydrofluoric acid Hydrofluoric acid Hydrofluoric acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Benzine, petroleum naphtha Black sulfate liquor Blast furnace gas Borax Boric acid Bromine Buttane Buttyl acetate Butyl alcohol, Butanol Calcium bisulfate Formic acid Formic acid Formic acid Furfural Gasoline, unleaded Gasoline, unleaded Gasoline, unleaded Gasoline H ITES Gasoline HI Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochoric acid Hydrofuoric acid Hydrofuori acid Hydrofuori acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Black sulfate liquor Blast furnace gas Boria Boria acid Bromine Buttane Buttyl acetate Butyl acetate Butyl acetate Butyl acetate Butyl acetate Formaldehyde Formic acid Formic acid Furfural Gasoline, unleaded Gasoline, unleaded Gasoline, unleaded Gasoline, Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydrochloric acid Hydrochoric acid Hydrofluosilicic acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Blast furnace gas Borax Boric acid Bromine Butane Butyl acetate Butyl acetate Butyl acohol, Butanol Calcium bisulfate Formic acid Furl oil Furfural Gasoline, unleaded Gasoline, unleaded Gasoline + MTBE Gasoline H TBE Gelatin Glucose Glue Gluce Gluce Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester blends Hydraulic fluids: Shosphate ester blends Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen sulfide, dry	
Boric acid Bromine Butane Butyl acetate Butyl alcohol, Butanol Calcium bisulfate Formic acid Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline, unleaded Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochloric acid Hydrochoric acid Hydrofluorila ester Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Bromine Butane Butyl acetate Butyl acetate Butyl alcohol, Butanol Calcium bisulfate Formaldehyde Formic acid Furfural Gasoline, unleaded Gasoline, unleaded Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochoric acid Hydrochoric acid Hydrofluosilicic acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Butane Butyl acetate Butyl alcohol, Butanol Calcium bisulfate Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline, unleaded Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydrolic fluids: Silicate ester Hydrochloric acid Hydrochoric acid Hydrofluosilicic acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide	
Butyl acetate Butyl alcohol, Butanol Calcium bisulfate Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline H TBE Gasoline H TBE Gelatin Glucose Gluc Gluce Gluce Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrobromic acid Hydrochloric acid Hydrofluoria acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen sulfide, dry	
Butyl alcohol, Butanol Calcium bisulfate Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline + MTBE Gelatin Glucose Gluc Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester blends Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrofluoric acid Hydrofluoric acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Calcium bisulfate Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrobloric acid Hydrochloric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen sulfide, dry	
Formaldehyde Formic acid Fuel oil Furfural Gasoline, unleaded Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester blends Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochloric acid Hydrochoric acid Hydrofluosilicic acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Fuel oil Furfural Gasoline, unleaded Gasoline HTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Petroleum Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrobromic acid Hydrochloric acid Hydrofluoric acid Hydrofluoris acid Hydrogen gas 140 °F (60 °C) Hydrogen sulfide, dry	Formaldehyde
Furfural Gasoline, unleaded Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrofluoric acid Hydrofluoric acid Hydrofluoric acid Hydrogen gas 140 °F (60 °C) Hydrogen sulfide, dry	
Gasoline, unleaded Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Shosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrochloric acid Hydrochoric acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Gasoline + MTBE Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Phosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Shosphate ester alyl Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrochloric acid Hydrochoric acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Gasoline Hi Test + MTBE Gelatin Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Petroleum Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrofluoric acid Hydrofluoric acid Hydrofluoris acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Glucose Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Petroleum Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester blends Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrochloric acid Hydrofluoric acid Hydrofluoric acid Hydrofluoric acid Hydrofluoric acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Glue Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Petroleum Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester allvyl Hydraulic fluids: Phosphate ester allvyl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrochloric acid Hydrochloric acid Hydrocyanic acid Hydrofluosilicic acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen sulfide, dry	Gelatin
Glycerine, glycerol Green sulfate liquor HFC-134 Hydraulic fluids: Petroleum Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester aryl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrochloric acid Hydrofluoris acid Hydrofluoris acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Green sulfate liquor HFC-134 Hydraulic fluids: Petroleum Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester aryl Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydraulic fluids: Silicate ester Hydrobromic acid Hydrochloric acid Hydrochloric acid Hydrofluoric acid Hydrofluoris acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
HFC-134 Hydraulic fluids: Petroleum Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester aryl Hydraulic fluids: Phosphate ester blends Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrofluoric acid Hydrofluoric acid Hydrofluoric acid Hydrofgen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydraulic fluids: Petroleum Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester aryl Hydraulic fluids: Phosphate ester blends Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrochloric acid Hydrochloric acid Hydrocyanic acid Hydrofluosilicic acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydraulic fluids: Phosphate ester alkyl Hydraulic fluids: Phosphate ester aryl Hydraulic fluids: Phosphate ester blends Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrocyanic acid Hydrofluosilicic acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydraulic fluids: Phosphate ester blends Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrofluoric acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydraulic fluids: Silicate ester Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	Hydraulic fluids: Phosphate ester aryl
Hydraulic fluids: Water glycol Hydrobromic acid Hydrochloric acid Hydrocyanic acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydrobromic acid Hydrochloric acid Hydrocyanic acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydrochloric acid Hydrocyanic acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydrocyanic acid Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydrofluoric acid Hydrofluosilicic acid Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	
Hydrogen gas 140 °F (60 °C) Hydrogen peroxide Hydrogen sulfide, dry	Hydrofluoric acid
Hydrogen peroxide Hydrogen sulfide, dry	Hydrofluosilicic acid
Hydrogen sulfide, dry	Hydrogen gas 140 °F (60 °C)
,	
	,

Darker

Chemical	*
Isobutyl alcohol	А
Isopropyl alcohol	А
Isooctane	Х
Kerosene Lacquers	X
Lacquers solvents	X
Lactic acid	А
Linseed oil	А
Lubricating oil, crude	С
Lubricating oil, refined Magnesium chloride 150 °F (65 °C)	C
Magnesium hydroxide 150 °F (65 °C)	В
Magnesium sulfate 150 °F (65 °C)	А
Mercuric chloride	A
Mercury Methyl alcohol, methanol	A A
Methyl chloride	X
Calcium chloride	А
Calcium hydroxide	А
Calcium hypochlorite	C B
Caliche liquors Cane sugar liquors	A
Carbolic acid, phenol	X
Carbon dioxide, dry-wet	А
Carbon disulfide	Х
Carbon monoxide 140 °F (60 °C)	A X
Carbon tetrachloride Castor oil	A
Cellosolve acetate	X
CFC-12	1
China wood oil, tung oil	Х
Chlorine, dry/wet Chlorinated solvents	X
Chloroacetic acid	
Chlorosulfonic acid	Х
Chromic acid	С
Citric acid	A B
Coke oven gas Copper chloride 150 °F (65 °C)	A
Copper sulfate 150 °F (65 °C)	A
Corn oil	А
Cottonseed oil	A
Creosote, coal tar Creosote, coal tar wood	C X
Creosols, cresylic acid	Î
Dichlorobenzene	Х
Dichloroethylene	Х
Diesel fuel	X
Diethanolamine 20% Diethylamine	B
Diisopropylamine	Ī
Dioctylphthalate	Х
Ethers	Х
Ethyl acetate Ethyl alcohol	B
Ethyl cellulose	C
Ethyl chloride	С
Ethyl glycol	A
Ferric chloride 150 °F (65 °C) Ferric sulfate 150 °F (65 °C)	A B
Methyl ethyl ketone	X
Methyl isopropyl ketone	С
Milk	A
MTBE Minoral oile	I A
Mineral oils Natural gas	A C
Nickel chloride 150 °F (65 °C)	A
Nickel sulfate 150 °F (65 °C)	Α
Nitric acid, crude	Х
Nitric acid, diluted 10% Nitric acid, concentrated 70%	C X
Hale dold, concentrated 7070	Λ

Chemical	*
Nitrobenzene	С
Oleic acid	X
Oleum Oxalic acid	I B
Oxygen	X
Palmitic acid	Х
Perchlorethylene Petroleum oils and crude 200 °F (95 °C)	C X
Phosphoric acid, crude	C
Phosphoric acid, pure 45%	C
Picric acid, molten	Х
Picric acid, water solution	I A
Potassium chlorite Potassium cyanide	A
Potassium hydroxide	C
Potassium sulfate	А
Propane	Х
Sewage Soap solution	B A
Soda ash, sodium carbonate	A
Sodium bicarbonate, baking soda	А
Sodium bisulfate	А
Sodium chloride	A A
Sodium cyanide Sodium hydroxide to 50% at 140 °F	A
Sodium hypochlorite	В
Sodium metaphosphate	А
Sodium nitrate	Х
Sodium perborate Sodium peroxide	B C
Sodium phosphate, monobasic	X
Sodium phosphate, dibasic	Х
Sodium phosphate, tribasic	Х
Sodium silicate	A A
Sodium sulfate Sodium sulfide	A
Sodium thiosulfate, hypo	T
Soybean oil	А
Stannic chloride	В
Steam 450 °F (230 °C) Stearic acid	I A
Sulfur	В
Sulfur chloride	С
Sulfur dioxide, dry	В
Sulfur trioxide, dry Sulfuric acid, 10%	B X
Sulfuric acid, 11% - 75%	X
Sulfuric acid, 76% - 95%	Х
Sulfuric acid, fuming	Х
Sulfurous acid Tannic acid	Х
Tar	B
Tartaric acid	A
Toluene, Toluol	Х
Trichloroethylene	Х
Turpentine Urea, water solution	X A
Vinegar	A
Vinyl acetate	Х
Water, acid mine	A
Water, fresh	A A
Water, distilled Whiskey and wines	A
Xylene, xylol	X
Zinc chloride	А
Zinc sulfate	A
* Resis t A = Good Resi B = Fair Besi	stance

B = Fair Resistance C = Poor Resistance

Catalogue 4401/UK

тнзз





Rubber Hose Dimensional Tolerances

According to norms

EN ISO 7840	
On inside diameter	
I.D. 5 mm	± 0.50 mm
I.D. 8 – 19 mm	± 0.75 mm
I.D. 25 mm	± 1.25 mm
I.D. 38 – 50 mm	± 1.50 mm
Length tolerance	± 1%
EN 12115	
On inside diameter	
I.D. 19 – 38 mm	± 0.50 mm
I.D. 50 mm	± 0.70 mm
I.D. 63.5 – 100 mm	± 0.80 mm
On outside diameter	

I.D. 63.5 – 100 mm	± 0.80 mm
On outside diameter	
O.D. 31 – 51 mm	± 1.00 mm
O.D. 66 – 91 mm	± 1.20 mm
O.D. 116 mm	± 1.60 mm
Length tolerance	±1%

EN ISO 3821	
On inside diameter	
I.D. 6.3 mm	± 0.40 mm
I.D. 8 – 10 mm	± 0.50 mm
Length tolerance	± 1%

EN ISO 6134	
On inside diameter	
≤ I.D. 38 mm	± 0.50 mm
> I.D. 38 mm	± 0.70 mm
On outside diameter	
≤ O.D. 48 mm	± 1.00 mm
O.D. 54 mm	± 1.20 mm
O.D. 69 mm	± 1.40 mm
Length tolerance	±1%

SAE J 30 R7	
On inside diameter	
I.D. ≤ 9.5 mm	± 0.40 mm
I.D. > 9.5 mm	± 0.60 mm
On outside diameter	
O.D. ≤ 15.9 mm	± 0.60 mm
O.D. > 15.9 mm	± 0.80 mm
Length tolerance	±1%

UNI 7140	
On inside diameter	± 0.50 mm
Length tolerance	± 1%
UNI EN ISO 1307	
On inside diameter	
$I.D. \leq 5 \text{ mm}$	± 0.60 mm
I.D. 6 – 20 mm	± 0.80 mm
I.D. > 20 – 25 mm	± 1.20 mm
I.D. > 25 mm	± 1.60 mm
Length tolerance	± 1%

RMA steel mandrel						
On inside diameter						
I.D. ≤ 38 mm	± 0.79 mm					
I.D. 40 – 120 mm	± 1.59 mm					
I.D. > 120 mm	± 2.00 mm					
On outside diameter						
O.D. ≤ 125 mm	± 1.59 mm					
O.D. > 125 mm	± 2.00 mm					
Tolerances on outside diar	neter are valid					
for hoses without a built-in	helix only.					
Length tolerance	± 1%					

PVC Hose Dimensional Tolerances

ASPIREX	
On inside diameter	±4%
On wall thickness	± 0.50 mm
Length tolerance	±1%
MULTIREX, ENOREX	
On inside diameter	
I.D. ≤ 50 mm	± 0.50 mm
I.D. > 50 mm	± 1.00 mm
On wall thickness	± 0.50 mm

APERSPIR	
On inside diameter	±1%
On wall thickness	± 0.50 mm
Length tolerance	±1%
APERFRUT	
APERFRUT On inside diameter	
-	± 0.50 mm
On inside diameter	± 0.50 mm ± 1.00 mm

VINITRESS	
On inside diameter	
I.D. ≤ 15 mm	± 0.50 mm
I.D. 16 – 19 mm	± 0.80 mm
I.D. > 19 mm	± 1.00 mm
On wall thickness	± 0.50 mm
Length tolerance	±1%

All other technical data are subject to a \pm 5 % tolerance



TH34

Parker Safety Guide

Parker safety guide for selecting and using hose, tubing, fittings and related accessories Parker Publication No. 4400-B.1 / Revised: September, 2015

WARNING

Failure or improper selection or improper use of hose, tubing, fittings, assemblies, valves, connectors, conductors or related accessories ("Products") can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of these Products include but are not limited to:

- Fittings thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Electrocution from high voltage electric powerlines.
- · Contact with suddenly moving or falling objects that are controlled by the conveyed fluid.
- · Injections by high-pressure fluid discharge.
- Dangerously whipping Hose.
- Tube or pipe burst.
- Weld joint fracture.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity buildup or other sources of electricity.
- Sparking or explosion while spraying paint or flammable liquids.
- · Injuries resulting from inhalation, ingestion or exposure to fluids.

Before selecting or using any of these Products, it is important that you read and follow the instructions below. No product from any division in Fluid Connector Group is approved for in-flight aerospace applications. For hoses and fittings used in in-flight aerospace applications, please contact Parker Aerospace Group

1.0 GENERAL INSTRUCTIONS

Scope: This safety guide provides instructions for selecting and using (including assembling, installing, and maintaining) these Products. For convenience, all rubber and/or thermoplastic products commonly called "hose" or "tubing" are called "Hose" in this safety guide. Metallic tube or pipe are called "tube". All assemblies made with Hose are called "Hose Assemblies". All assemblies made with Tube are called "Tube Assemblies". All assemblies made with Tube are called "Tube Assemblies". All products commonly called "fittings", "couplings" or "adapters" are called "Fittings". Valves are fluid system components that control the passage of fluid. Related accessories are ancillary devices that enhance or monitor performance including crimping, flaring, flanging, presetting, bending, cutting, deburring, swaging machines, sensors, tags, lockout handles, spring guards and associated tooling. This safety guide is a supplement to and is to be used with the specific Parker publications for the specific Hose, Fittings and Related Accessories that are being considered for use. Parker publications are available at www.parker.com. SAE J1273 (www.sae.org) and ISO 17165-2 (www.ansi.org) also provide recommended practices for hydraulic Hose Assemblies, and should be followed.

1.1 Fail-Safe: Hose, Hose Assemblies, Tube, Tube Assemblies and Fittings can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of the Hose, Hose Assembly, Tube, Tube Assembly or Fitting will not endanger persons or property.

1.2 Distribution: Provide a copy of this safety guide to each person responsible for selecting or using Hose, Tube and Fitting products. Do not select or use Parker Hose, Tube or Fittings without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the Products.

1.3 User Responsibility: Due to the wide variety of operating conditions and applications for Hose, Tube and Fittings. Parker does not represent or warrant that any particular Hose, Tube or Fitting is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:

- Making the final selection of the Products.
- Assuring that the user's requirements are met and that the application presents no health or safety hazards.
- Following the safety guide for Related Accessories and being trained to operate Related Accessories.
- Providing all appropriate health and safety warnings on the equipment on which the Products are used.
- Assuring compliance with all applicable government and industry standards.

1.4 Additional Questions: Call the appropriate Parker technical service department if you have any questions or require any additional infor-

mation. See the Parker publication for the Products being considered or used, or call 1-800-CPARKER, or go to www.parker.com, for telephone numbers of the appropriate technical service department.

2.0 HOSE, TUBE AND FITTINGS SELECTION INSTRUCTIONS

2.1 Electrical Conductivity: Certain applications require that the Hose be nonconductive to prevent electrical current flow. Other applications require the Hose and the Fittings and the Hose/Fitting interface to be sufficiently conductive to drain off static electricity. Extreme care must be exercised when selecting Hose, Tube and Fittings for these or any other applications in which electrical conductivity or nonconductivity is a factor. The electrical conductivity or nonconductivity of Hose, Tube and Fittings is dependent upon many factors and may be susceptible to change. These factors include but are not limited to the various materials used to make the Hose and the Fittings, Fitting finish (some Fitting finishes are electrically conductive while others are nonconductive), manufacturing methods (including moisture control), how the Fittings contact the Hose, age and amount of deterioration or damage or other changes, moisture content of the Hose at any particular time, and other factors. The following are considerations for electrically nonconductive and conductive Hose. For other applications consult the individual catalog pages and the appropriate industry or regulatory standards for proper selection.

2.1.1 Electrically Nonconductive Hose: Certain applications require that the Hose be nonconductive to prevent electrical current flow or to maintain electrical isolation. For applications that require Hose to be electrically nonconductive, including but not limited to applications near high voltage electric lines, only special nonconductive Hose can be used. The manufacturer of the equipment in which the nonconductive Hose is to be used must be consulted to be certain that the Hose, Tube and Fittings that are selected are proper for the application. Do not use any Parker Hose or Fittings for any such application requiring nonconductive Hose, including but not limited to applications near high voltage electric lines or dense magnetic fields, unless (i) the application is expressly approved in the Parker technical publication for the product, (ii) the Hose is marked "nonconductive", and (iii) the manufacturer of the equipment on which the Hose is to be used specifically approves the particular Parker Hose, Tube and Fittings for such use.

2.1.2 Electrically Conductive Hose: Parker manufactures special Hose for certain applications that require electrically conductive Hose. Parker manufactures special Hose for conveying paint in airless paint spraying applications. This Hose is labeled "Electrically Conductive Airless Paint Spray Hose" on its layline and packaging. This Hose must be properly connected to the appropriate Parker Fittings and properly grounded in order to dissipate dangerous static charge buildup, which occurs in all airless paint spraying applications. Do not use any other Hose for airless paint spraying, even if electrically conductive. Use of any other Hose or failure to properly connect the Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. All hoses that convey fuels must be grounded. Parker manufactures a special Hose for

TH35

hvmatik



Parker Safety Guide

certain compressed natural gas ("CNG") applications where static electricity buildup may occur. Parker CNG Hose assemblies comply with the requirements of ANSI/IAS NGV 4.2; CSA 12.52, "Hoses for Natural Gas Vehicles and Dispensing Systems" (www.ansi.org). This Hose is labeled "Electrically Conductive for CNG Use" on its layline and packaging. This Hose must be properly connected to the appropriate Parker Fittings and properly grounded in order to dissipate dangerous static charge buildup, which occurs in, for example, high velocity CNG dispensing or transfer. Do not use any other Hose for CNG applications where static charge buildup may occur, even if electrically conductive. Use of other Hoses in CNG applications or failure to properly connect or ground this Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. Care must also be taken to protect against CNG permeation through the Hose wall. See section 2.6, Permeation, for more information. Parker CNG Hose is intended for dispenser and vehicle use within the specified temperature range. Parker CNG Hose should not be used in confined spaces or unventilated areas or areas exceeding the specified temperature range. Final assemblies must be tested for leaks. CNG Hose Assemblies should be tested on a monthly basis for conductivity per ANSI/IAS NGV 4.2; CSA 12.52. Parker manufactures special Hose for aerospace in-flight applications. Aerospace in-flight applications employing Hose to transmit fuel, lubricating fluids and hydraulic fluids require a special Hose with a conductive inner tube. This Hose for in-flight applications is available only from Parker's Stratoflex Products Division. Do not use any other Parker Hose for inflight applications, even if electrically conductive. Use of other Hoses for in-flight applications or failure to properly connect or ground this Hose can cause a fire or an explosion resulting in death, personal injury and property damage. These Hose assemblies for in-flight applications must meet all applicable aerospace industry, aircraft engine and aircraft requirements.

2.2 Pressure: Hose, Tube and Fitting selection must be made so that the published maximum working pressure of the Hose, Tube and Fittings are equal to or greater than the maximum system pressure. The maximum working pressure of a Hose, or Tube Assembly is the lower of the respective published maximum working pressures of the Hose, Tube and the Fittings used. Surge pressures or peak transient pressures in the system must be below the published maximum working pressures and peak pressures can usually only be determined by sensitive electrical instrumentation that measures and indicates pressures or peak transient pressures and cannot be used to determine surge pressures or peak transient pressures. Published burst pressure ratings for Hose is for manufacturing test purposes only and is no indication that the Product can be used in applications at the burst pressure or otherwise above the published maximum recommended working pressure.

2.3 Suction: Hoses used for suction applications must be selected to insure that the Hose will withstand the vacuum and pressure of the system. Improperly selected Hose may collapse in suction application.

2.4 Temperature: Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the Hose, Tube, Fitting and Seals. Temperatures below and above the recommended limit can degrade Hose, Tube, Fittings and Seals to a point where a failure may occur and release fluid. Tube and Fittings performances are normally degraded at elevated temperature. Material compatibility can also change at temperatures outside of the rated range. Properly insulate and protect the Hose Assembly when routing near hot objects (e.g. manifolds). Do not use any Hose in any application where failure of the Hose could result in the conveyed fluids (or vapors or mist from the conveyed fluids) contacting any open flame, molten metal, or other potential fire ignition source that could cause burning or explosion of the conveyed fluids or vapors.

2.5 Fluid Compatibility: Hose, and Tube Assembly selection must assure compatibility of the Hose tube, cover, reinforcement, Tube, Plating and Seals with the fluid media used. See the fluid compatibility chart in the Parker publication for the product being considered or used. This information is offered only as a guide. Actual service life can only be determined by the end user by testing under all extreme conditions and other analysis. Hose, and Tube that is chemically compatible with a particular fluid must be assembled using Fittings and adapters containing likewise compatible seals. Flange or flare processes can change Tube material properties that may not be compatible with certain requirements such as NACE

2.6 Permeation: Permeation (that is, seepage through the Hose or Seal) will occur from inside the Hose or Fitting to outside when Hose

or Fitting is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials as helium, diesel fuel, gasoline, natural gas, or LPG). This permeation may result in high concentrations of vapors which are potentially flammable, explosive, or toxic, and in loss of fluid. Dangerous explosions, fires, and other hazards can result when using the wrong Hose for such applications. The system designer must take into account the fact that this permeation will take place and must not use Hose or Fitting if this permeation could be hazardous. The system designer must take into account all legal, government, insurance, or any other special regulations which govern the use of fuels and refrigerants. Never use a Hose or Fitting even though the fluid compatibility is acceptable without considering the potential hazardous effects that can result from permeation through the Hose or Tube Assembly. Permeation of moisture from outside the Hose or Fitting to inside the Hose or Fitting will also occur in Hose or Tube assemblies, regardless of internal pressure. If this moisture per-meation would have detrimental effects (particularly, but not limited to refrigeration and air conditioning systems), incorporation of sufficient drying capacity in the system or other appropriate system safeguards should be selected and used. The sudden pressure release of highly pressurized gas could also result in Explosive Decompression failure of permeated Seals and Hoses.

2.7 Size: Transmission of power by means of pressurized fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation or excessive fluid velocity.

2.8 Routing: Attention must be given to optimum routing to minimize inherent problems (kinking or flow restriction due to Hose collapse, twisting of the Hose, proximity to hot objects or heat sources). For additional routing recommendations see SAE J1273 and ISO 17165-2. Hose Assemblies have a finite life and should be installed in a manner that allows for ease of inspection and future replacement. Hose because of its relative short life, should not be used in residential and commercial buildings inside of inaccessible walls or floors, unless specifically allowed in the product literature. Always review all product literature for proper installation and routing instructions.

2.9 Environment: Care must be taken to insure that the Hose, Tube and Fittings are either compatible with or protected from the environment (that is, surrounding conditions) to which they are exposed. Environmental conditions including but not limited to ultraviolet radiation, sunlight, heat, ozone, moisture, water, salt water, chemicals and air pollutants can cause degradation and premature failure.

2.10 Mechanical Loads: External forces can significantly reduce Hose, Tube and Fitting life or cause failure. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type Fittings or adapters may be required to insure no twist is put into the Hose. Use of proper Hose or Tube clamps may also be required to reduce external mechanical loads. Unusual applications may require special testing prior to Hose selection.

2.11 Physical Damage: Care must be taken to protect Hose from wear, snagging, kinking, bending smaller that minimum bend radius and cutting, any of which can cause premature Hose failure. Any Hose that has been kinked or bent to a radius smaller than the minimum bend radius, and any Hose that has been cut or is cracked or is otherwise damaged should be removed and discarded. Fittings with damages such as scratches on sealing surfaces and deformation should be replaced.

2.12 Proper End Fitting: See instructions 3.2 through 3.5. These recommendations may be substantiated by testing to industry standards such as SAE J517 for hydraulic applications, or MIL-A-5070, AS1339, or AS3517 for Hoses from Parker's Stratoflex Products Division for aerospace applications.

2.13 Length: When determining the proper Hose or Tube length of an assembly, be aware of Hose length change due to pressure, Tube length change due to thermal expansion or contraction, and Hose or Tube and machine tolerances and movement must be considered. When routing short hose assemblies, it is recommended that the minimum free hose length is always used. Consult the hose manufacturer for their minimum free hose length recommendations. Hose assemblies should be installed in such a way that any motion or flexing occurs within the same plane.

2.14 Specifications and Standards: When selecting Hose, Tube and Fittings, government, industry, and Parker specifications and recommendations must be reviewed and followed as applicable.

2.15 Hose Cleanliness: Hose and Tube components may vary in cleanliness levels. Care must be taken to insure that the Hose and



TH36



Parker Safety Guide

Tube Assembly selected has an adequate level of cleanliness for the application.

2.16 Fire Resistant Fluids: Some fire resistant fluids that are to be conveyed by Hose or Tube require use of the same type of Hose or Tube as used with petroleum base fluids. Some such fluids require a special Hose, Tube, Fitting and Seal, while a few fluids will not work with any Hose at all. See instructions 2.5 and 1.5. The wrong Hose, Tube, Fitting or Seal may fail after a very short service. In addition, all liquids but pure water may burn fiercely under certain conditions, and even pure water leakage may be hazardous.

2.17 Radiant Heat: Hose and Seals can be heated to destruction without contact by such nearby items as hot manifolds or molten metal. The same heat source may then initiate a fire. This can occur despite the presence of cool air around the Hose or Seal. Performance of Tube and Fitting subjected to the heat could be degraded.

2.18 Welding or Brazing: When using a torch or arc welder in close proximity to hydraulic lines, the hydraulic lines should be removed or shielded with appropriate fire resistant materials. Flame or weld spatter could burn through the Hose or Seal and possibly ignite escaping fluid resulting in a catastrophic failure. Heating of plated parts, including Hose Fittings and adapters, above 450°F (232°C) such as during welding, brazing or soldering may emit deadly gases. Any elastomer seal on fittings shall be removed prior to welding or brazing, any metallic surfaces shall be protected after brazing or welding when necessary. Welding and brazing filler material shall be compatible with the Tube and Fitting that are joined.

2.19 Atomic Radiation: Atomic radiation affects all materials used in Hose and Tube assemblies. Since the long-term effects may be unknown, do not expose Hose or Tube assemblies to atomic radiation. Nuclear applications may require special Tube and Fittings.

2.20 Aerospace Applications: The only Hose, Tube and Fittings that may be used for in-flight aerospace applications are those available from Parker's Stratoflex Products Division. Do not use any other Hose or Fittings for in-flight applications. Do not use any Hose or Fittings from Parker's Stratoflex Products Division with any other Hose or Fittings, unless expressly approved in writing by the engineering manager or chief engineer of Stratoflex Products Division and verified by the user's own testing and inspection to aerospace industry standards.

2.21 Unlocking Couplings: Ball locking couplings or other Fittings with quick disconnect ability can unintentionally disconnect if they are dragged over obstructions, or if the sleeve or other disconnect member, is bumped or moved enough to cause disconnect. Threaded Fittings should be considered where there is a potential for accidental uncoupling.

3.0 HOSE AND FITTINGS ASSEMBLY AND INSTALLATION IN-STRUCTIONS

3.1 Component Inspection: Prior to assembly, a careful examination of the Hose and Fittings must be performed. All components must be checked for correct style, size, catalog number, and length. The Hose must be examined for cleanliness, obstructions, blisters, cover looseness, kinks, cracks, cuts or any other visible defects. Inspect the Fitting and sealing surfaces for burrs, nicks, corrosion or other imperfections. Do NOT use any component that displays any signs of nonconformance.

3.2 Hose and Fitting Assembly: Do not assemble a Parker Fitting on a Parker Hose that is not specifically listed by Parker for that Fitting, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division. Do not assemble a Parker Fitting on another manufacturer's Hose or a Parker Hose on another manufacturer's Fitting unless (i) the engineering manager or chief engineer of the appropriate Parker division approves the Assembly in writing or that combination is expressly approved in the appropriate Parker literature for the specific Parker product, and

(ii) the user verifies the Assembly and the application through analysis and testing. For Parker Hose that does not specify a Parker Fitting, the user is solely responsible for the selection of the proper Fitting and Hose Assembly procedures. See instruction 1.4. To prevent the possibility of problems such as leakage at the Fitting or system contamination, it is important to completely remove all debris from the cutting operation before installation of the Fittings. The Parker published instructions must be followed for assembling the Fittings on the Hose. These instructions are provided in the Parker Fitting catalog for the specific Parker Fitting being used, or by calling 1-800-CPARKER, or at www.parker.com.

3.3 Related Accessories: Do not crimp or swage any Parker Hose or Fitting with anything but the listed swage or crimp machine and dies

in accordance with Parker published instructions. Do not crimp or swage another manufacturer's Fitting with a Parker crimp or swage die unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division.

3.4 Parts: Do not use any Parker Fitting part (including but not limited to socket, shell, nipple, or insert) except with the correct Parker mating parts, in accordance with Parker published instructions, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division.

3.5 Field Attachable/Permanent: Do not reuse any field attachable Hose Fitting that has blown or pulled off a Hose. Do not reuse a Parker permanent Hose Fitting (crimped or swaged) or any part thereof. Complete Hose Assemblies may only be reused after proper inspection under section 4.0. Do not assemble Fittings to any previously used hydraulic Hose that was in service, for use in a fluid power application.

3.6 Pre-Installation Inspection: Prior to installation, a careful examination of the Hose Assembly must be performed. Inspect the Hose Assembly for any damage or defects. DO NOT use any Hose Assembly that displays any signs of nonconformance.

3.7 Minimum Bend Radius: Installation of a Hose at less than the minimum listed bend radius may significantly reduce the Hose life. Particular attention must be given to preclude sharp bending at the Hose to Fitting juncture. Any bending during installation at less than the minimum bend radius must be avoided. If any Hose is kinked during installation, the Hose must be discarded.

3.8 Twist Angle and Orientation: Hose Assembly installation must be such that relative motion of machine components does not produce twisting.

3.9 Securement: In many applications, it may be necessary to restrain, protect, or guide the Hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to insure such restraints do not introduce additional stress or wear points.

3.10 Proper Connection of Ports: Proper physical installation of the Hose Assembly requires a correctly installed port connection insuring that no twist or torque is transferred to the Hose when the Fittings are being tightened or otherwise during use.

3.11 External Damage: Proper installation is not complete without insuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.

3.12 System Checkout: All air entrapment must be eliminated and the system pressurized to the maximum system pressure (at or below the Hose maximum working pressure) and checked for proper function and freedom from leaks. Personnel must stay out of potential hazardous areas while testing and using.

3.13 Routing: The Hose Assembly should be routed in such a manner so if a failure does occur, the escaping media will not cause personal injury or property damage. In addition, if fluid media comes in contact with hot surfaces, open flame or sparks, a fire or explosion may occur. See section 2.4.

3.14 Ground Fault Equipment Protection Devices (GFEPDs): WARN-INGI Fire and Shock Hazard. To minimize the danger of fire if the heating cable of a Multitube bundle is damaged or improperly installed, use a Ground Fault Equipment Protection Device. Electrical fault currents may be insufficient to trip a conventional circuit breaker. For ground fault protection, the IEEE 515: (www.ansi.org) standard for heating cables recommends the use of GFEPDs with a nominal 30 milliampere trip level for "ipping systems in classified areas, those areas requiring a high degree of maintenance, or which may be exposed to physical abuse or corrosive atmospheres".

4.0 TUBE AND FITTINGS ASSEMBLY AND INSTALLATION IN-STRUCTIONS

4.1 Component Inspection: Prior to assembly, a careful examination of the Tube and Fittings must be performed. All components must be checked for correct style, size, material, seal, and length. Inspect the Fitting and sealing surfaces for burrs, nicks, corrosion, missing seal or other imperfections. Do NOT use any component that displays any signs of nonconformance.

4.2 Tube and Fitting Assembly: Do not assemble a Parker Fitting with a Tube that is not specifically listed by Parker for that Fitting, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division. The Tube must meet the requirements specified to the Fitting. The Parker published instructions must



TH37

Parker Safety Guide

hymatik

be followed for assembling the Fittings to a Tube. These instructions are provided in the Parker Fitting catalog for the specific Parker Fitting being used, or by calling 1-800-CPARKER, or at www.parker.com.

4.3 Related Accessories: Do not preset or flange Parker Fitting components using another manufacturer's equipment or procedures unless authorized in writing by the engineering manager or chief engi-neer of the appropriate Parker division. Tube, Fitting component and tooling must be check for correct style, size and material. Operation and maintenance of Related Accessories must be in accordance with the operation manual for the designated Accessory.

4.4 Securement: In many applications, it may be necessary to restrain, protect, or guide the Tube to protect it from damage by unnecessary flexing, pressure surges, vibration, and contact with other mechanical components. Care must be taken to insure such restraints do not introduce additional stress or wear points.

4.5 Proper Connection of Ports: Proper physical installation of the Tube Assembly requires a correctly installed port connection insuring that no torque is transferred to the Tube when the Fittings are being tightened or otherwise during use.

4.6 External Damage: Proper installation is not complete without insuring that tensile loads, side loads, flattening, potential abrasion, thread damage or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.

4.7 System Checkout: All air entrapment must be eliminated and the system pressurized to the maximum system pressure (at or below the Tube Assembly maximum working pressure) and checked for proper function and freedom from leaks. Personnel must stay out of potential hazardous areas while testing and using.

Routing: The Tube Assembly should be routed in such a manner so if a failure does occur, the escaping media will not cause personal injury or property damage. In addition, if fluid media comes in contact with hot surfaces, open flame or sparks, a fire or explosion may occur. See section 2.4.

5.0 HOSE AND FITTING MAINTENANCE AND REPLACEMENT INSTRUCTIONS

5.1 Even with proper selection and installation, Hose life may be siginficantly reduced without a continuing maintenance program. The severity of the application, risk potential from a possible Hose failure, and experience with any Hose failures in the application or in similar applications should determine the frequency of the inspection and the replacement for the Products so that Products are replaced before any failure occurs. Certain products require maintenance and inspection per industry requirements. Failure to adhere to these re-quirements may lead to premature failure. A maintenance program must be established and followed by the user and, at minimum, must include instructions 5.2 through 5.7

5.2 Visual Inspection Hose/Fitting: Any of the following conditions require immediate shut down and replacement of the Hose Assembly: Fitting slippage on Hose;

- Damaged, cracked, cut or abraded cover (any reinforcement exposed);
- Hard, stiff, heat cracked, or charred Hose;
- Cracked, damaged, or badly corroded Fittings;
- Leaks at Fitting or in Hose;

Kinked, crushed, flattened or twisted Hose; and Blistered, soft, degraded, or loose cover. 5.3 Visual Inspection All Other: The following items must be tightened,

repaired, corrected or replaced as required: Leaking port conditions;

- Excess dirt buildup;
- Worn clamps, guards or shields; and System fluid level, fluid type, and any air entrapment.

5.4 Functional Test: Operate the system at maximum operating pressure and check for possible malfunctions and leaks. Personnel must avoid potential hazardous areas while testing and using the system. See section 2.2.

5.5 Replacement Intervals: Hose assemblies and elastomeric seals used on Hose Fittings and adapters will eventually age, harden, wear and deteriorate under thermal cycling and compression set. Hose Assemblies and elastomeric seals should be inspected and replaced at specific replacement intervals, based on previous service life, gov ernment or industry recommendations, or when failures could result in unacceptable downtime, damage, or injury risk. See section 1.2. Hose and Fittings may be subjected to internal mechanical and/or chemical wear from the conveying fluid and may fail without warning. The user must determine the product life under such circumstances by testing. Also see section 2.5.



TH38

Catalogue 4401/UK

5.6 Hose Inspection and Failure: Hydraulic power is accomplished by utilizing high pressure fluids to transfer energy and do work. Hoses, Fittings and Hose Assemblies all contribute to this by transmitting fluids at high pressures. Fluids under pressure can be dangerous and potentially lethal and, therefore, extreme caution must be exercised when working with fluids under pressure and handling the Hoses transporting the fluids. From time to time, Hose Assemblies will fail if they are not replaced at proper time intervals. Usually these failures are the result of some form of misapplication, abuse, wear or failure to perform proper maintenance. When Hoses fail, generally the high pressure fluids inside escape in a stream which may or may not be visible to the user. Under no circumstances should the user attempt to locate the leak by "feeling" with their hands or any other part of their body. High pressure fluids can and will penetrate the skin and cause severe tissue damage and possibly loss of limb. Even seemingly minor hydraulic fluid injection injuries must be treated immediately by a physician with knowledge of the tissue damaging properties of hydraulic fluid.

If a Hose failure occurs, immediately shut down the equipment and leave the area until pressure has been completely released from the Hose Assembly. Simply shutting down the hydraulic pump may or may not eliminate the pressure in the Hose Assembly. Many times check valves, etc., are employed in a system and can cause pressure to remain in a Hose Assembly even when pumps or equipment are not operating. Tiny holes in the Hose, commonly known as pinholes, can eject small, dangerously powerful but hard to see streams of hydraulic fluid. It may take several minutes or even hours for the pressure to be relieved so that the Hose Assembly may be examined safely. Once the pressure has been reduced to zero, the Hose As-sembly may be taken off the equipment and examined. It must always be replaced if a failure has occurred. Never attempt to patch or repair a Hose Assembly that has failed. Consult the nearest Parker distributor or the appropriate Parker division for Hose Assembly replacement information. Never touch or examine a failed Hose Assembly unless it is obvious that the Hose no longer contains fluid under pressure. The high pressure fluid is extremely dangerous and can cause serious and potentially fatal injury.

5.7 Elastomeric seals: Elastomeric seals will eventually age, harden, wear and deteriorate under thermal cycling and compression set. Elastomeric seals should be inspected and replaced.

5.8 Refrigerant gases: Special care should be taken when working with refrigeration systems. Sudden escape of refrigerant gases can cause blindness if the escaping gases contact the eye and can cause freezing or other severe injuries if it contacts any other portion of the body

5.9 Compressed natural gas (CNG): Parker CNG Hose Assemblies should be tested after installation and before use, and at least on a monthly basis per instructions provided on the Hose Assembly tag. The recommended procedure is to pressurize the Hose and check for leaks and to visually inspect the Hose for damage and to perform an electrical resistance test.

Caution: Matches, candles, open flame or other sources of ignition shall not be used for Hose inspection. Leak check solutions should be rinsed off after use.

6.0 HOSE STORAGE

6.1 Age Control: Hose and Hose Assemblies must be stored in a manner that facilitates age control and first-in and first-out usage based on manufacturing date of the Hose and Hose Assemblies. Un-less otherwise specified by the manufacturer or defined by local laws and regulations:

6.1.1 The shelf life of rubber hose in bulk form or hose made from two or more materials is 28 quarters (7 years) from the date of manufacture, with an extension of 12 quarters (3 years), if stored in accordance with ISO 2230;

6.1.2 The shelf life of thermoplastic and polytetrafluoroethylene hose is considered to be unlimited;

6.1.3 Hose assemblies that pass visual inspection and proof test shall not be stored for longer than 2 years.

6.1.4 Storage: Stored Hose and Hose Assemblies must not be subjected to damage that could reduce their expected service life and must be placed in a cool, dark and dry area with the ends capped. Stored Hose and Hose Assemblies must not be exposed to temperature extremes, ozone, oils, corrosive liquids or fumes, solvents, high humidity, rodents, insects, ultraviolet light, electromagnetic fields or radioactive materials.

hvmatik

Technical Handbook

Critical Applications

Safety

It is important to employ safe practices in the use of industrial hose due to the number of potentially dangerous applications encountered and products conveyed, and the number of people that may be involved or exposed. Strictly observe these simple practices to help avoid accidents.

- Training: Train all operators thoroughly
- Evaluation: Evaluate the application to determine the hose performance requirements
- Selection: Select the most appropriate hose and couplings for the application; ensure that the couplings are compatible with the media and hose, and securely attached to the hose
- Service: Regularly inspect and maintain both the hose and couplings while in service

While many industrial hose applications are potentially dangerous, some are of particular concern because their danger may not be readily apparent. This is especially true for applications involving untrained or inexperienced operators.

Anhydrous Ammonia (NH3) Hose

Many accidents involving anhydrous ammonia occur due to selection of an incorrect hose for the application. Anhydrous ammonia hose must be specially designed and compounded to handle the media, with a perforated cover to prevent gas build-up amidst the layers of hose.

WARNING! Use ONLY anhydrous ammonia hose for anhydrous ammonia service. Contact with anhydrous ammonia in its liquid or gaseous (vapor) phase will burn skin, eyes and lungs, causing serious bodily injury or death.

- Do not use anhydrous ammonia hose for LPG service. It may fail suddenly and quickly. Anhydrous ammonia hose and LPG hose are frequently used in proximity and may be accidentally switched.
- Do not use with couplings containing o-rings, which may dry out, crack and fail over time. Do not use with male swivel couplings or other couplings containing hidden o-rings.

Anhydrous ammonia hose is designed to allow a limited amount of permeation of gas through the wall of the hose when in service, and staining of the hose cover in the pinpricked areas does not necessarily indicate leakage for a hose in service. However, a visible gas mist escaping through the hose is an indication of leakage. To verify the integrity of a hose in service, perform a hydrostatic test on the assembly; immediately remove from service any that fail the test.

Note: For non-agricultural or refrigeration applications, contact Parker.



TH39



Chemical Hose

A chemical hose system failure could cause the release of poisonous, corrosive, or flammable material resulting in property damage, serious bodily injury or death. All reputable manufacturers of chemical hose recommend specific hose constructions to handle various chemicals.

Refer to the chemical guides in this catalog, or contact Parker for technical assistance before using or recommending a hose product.

Handling

- Use care to prevent mishandling. Crushing or kinking of the hose can cause severe damage to the reinforcement.
- Use proper hose suspension equipment when lifting or dragging a hose to ensure that the recommended curvature is not exceeded. Avoid sharp bends at the end fittings and at manifold connections.

Operation

 Use safety precautions such as wearing eye or face protection, rubber gloves, boots, and other types of protective clothing.

Gasoline Dispenser Hose

Millions of consumers operate gasoline pumps every day, increasing the concern for the safe use of dispensing equipment, including the hose. Since gasoline dispenser hoses are subject to frequent abuse, hose selection must include consideration of the rigors of the application. For maximum service life, select only the highest quality.

Note: To avoid fuel contamination do not use gasoline dispenser or farm pump hose to fuel aircraft.

• Monitor pressures and temperatures to ensure that the hose is not exposed to conditions above specified limits.

hvmatik

 Do not allow chemicals to contact the exterior of the hose or allow hose to lie in a pool of chemicals since the hose cover may not have the same level of corrosion resistance as the tube. Corrosive materials that come into contact with the reinforcing material will cause reduced service life and premature hose failure.

Temperature

Do not use chemical hose at pressures or temperatures exceeding those as specified for the product. Many chemical resistance guides are based on temperatures of 70°F (21°C). Elevated temperatures can change the chemical resistance ratings. Many chemicals will become more aggressive as temperatures increase, reducing the ability of hose compounds to withstand them. Contact Parker for chemical compatibility data at elevated temperatures. If no data exists, end users are required to perform compatibility testing at the desired temperature.

LP Gas (Propane) Hose

Many accidents involving LP Gas occur due to selection of an incorrect hose for the application. LP Gas hose must be specially designed and compounded to handle the media, with a perforated cover to prevent gas build-up amidst the layers of the hose.

WARNING! Use ONLY LP Gas hose for LP Gas service. LP Gas possesses volatile characteristics that may produce fire or explosions causing property damage, serious bodily injury or death.

- Do not use LP Gas hose for anhydrous ammonia service. It may fail suddenly and quickly. Anhydrous ammonia hose and LPG hose are frequently used in proximity and may be accidentally switched.
- Do not use with couplings containing o-rings, which may dry out, crack and fail over time. Do not use with male swivel couplings or other couplings containing hidden o-rings.

LP Gas hose is designed to allow a limited amount of permeation of LP Gas through the wall of the hose when in service. The permeation is apparent when the hose is moist or in water, and bubbles may be perceived as leakage. However, a legitimate propane leak creates a frosting or icing on the surface of the hose or coupling.

To verify the integrity of a hose in service, perform a hydrostatic test on the assembly; immediately remove from service any hose that fails the test.



Natural Gas and LP Gas Hose

The molecules of natural gas are small, enhancing their ability to permeate through standard rubber or PVC hose constructions. The permeation process is more rapid as the working pressure increases, and natural gas accumulates with potentially dangerous consequences.

- Use only in a well-ventilated environment: Outdoors, or indoors with significant continuous air movement.
- Do not use LP Gas hose to replace fixed/rigid pipe where that material is more appropriate due to reduced permeation, overall strength and durability. Use rigid pipe, non-permeable tubing or hose with barrier constructions to convey natural gas whenever possible.

Steam Hose

Water changes to hot water and phases of steam when subjected to heat and pressure. The greater the pressure, the higher the temperature required to achieve and maintain a steam phase. If steam escapes, dangerous quantities of heat may be released very suddenly.

WARNING! Hot water, low pressure steam and high pressure steam may escape explosively and will scald skin, eyes and lungs, which may lead to severe bodily injury or death.

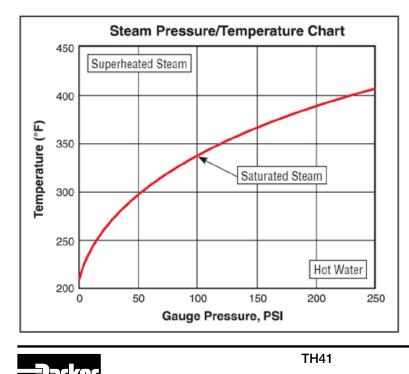
Petroleum Transfer Hose

- Do not use for oil or fuel transfer service in or on open water. Hose damage or failure may result in spillage and environmental damage. Use hose specifically designed for this application.
- Do not immerse in fuel. The hose cover compound may not be of sufficient grade to resist attack by the fuel. Use hose specifically designed for this application.

hvmatik

- Many steam systems incorporate detergents or rust inhibitors which may attack steam hose. Prior to using a steam hose with detergents or rust inhibitors, refer to the chemical guides in this catalog, or contact Parker.
- Drain steam hose after each use to reduce the possibility of hose popcorning while in service.

The chart at the right represents the three forms of water when subjected to various combinations of heat and pressure. The red line represents the point at which hot water becomes saturated steam. The area below the red line is hot water; the area above the red line is superheated steam.





Welding Hose

Many accidents involving welding hose occur due to selection of an incorrect hose for the application. Welding hose must be specially designed and compounded to handle the media. Due to the extreme volatility of gases, the varying compatibility of gases with the various grades of hose, and the rough environment of many welding applications, it is crucial to select the correct welding hose.

WARNING! Welding gases possess volatile characteristics that may produce fire or explosions causing property damage, serious bodily injury or death.

- Replace all assemblies that show signs of abrading, abuse, age, damage or fatigue. Do not attempt to recouple, repair or splice hose assemblies.
- Fabricate hose assemblies using only crimped-on ferrules at least 25 mm long to ensure coverage and support of the coupling stem inside the hose.
- Couplings attached with bands or clamps may reduce the working pressure of the hose assembly to less than the maximum rated working pressure of the hose.

PVC / Thermoplastic Hose

Thermoplastic polymer compounds are designed to resist deterioration when exposed to a wide range of commercial chemicals and environmental conditions. The resistance to attack is based on many factors, including temperature, pressure, chemical concentration, exposure to ultraviolet light, velocity of the media and duration of exposure/ service (intermittent or constant). The user is solely responsible for making the final selection of the hose and tubing, and meeting all endurance, maintenance, performance, safety and warning requirements of the application.

WARNING! As temperature increases or decreases, burst pressure, safe working pressure, coupling retention properties, and other safety characteristics of the hose can significantly decrease. Failure to consider how temperature and other conditions affect hose performance may cause property damage, serious bodily injury or death.





Notes	

Catalogue 44



Notes
alogue 4401/UK











ENGINEERING YOUR SUCCESS.



A – Oil & Fuel

Hose	ID Range (mm)	Temp. Range (°C)	Application
CARBOPRESS N/L 10	5 - 25	-25 / +80	fuel, oil, petrol aromatic < 50 %
CARBOPRESS N/L 20	6 - 25	-25 / +80	fuel, oil, petrol aromatic < 50 %
CARBURITE 10	19 - 150	-30 / +80	fuel, oil, petrol aromatic < 50 %
CARBOCORD EN 12115	19 - 100	-25 / +80	fuel, oil, petrol aromatic < 50 %
CHEMIOEL EN 12115	19 - 100	-25 / +80	fuel, oil, petrol aromatic < 50 %
CERVINO EN 12115	50 - 100	-40 / +80	fuel, oil, petrol aromatic < 50 %
E-Z FORM™ HT	12.7 - 25.4	-40 / +150	petrobased oil suc./ret. line, power stee



hymatik

Oil & Fuel 👸

	Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page
	NBR	textile	NBR	10	3			A4
	NBR	textile	NBR	20	3			A4
	NBR	textile	NBR/SBR	10	3	yes		A5
	NBR	textile + copper wires	NBR/SBR	16	4		EN 12115	A6
	NBR	textile + copper wires	NBR/SBR	16	4	yes	EN 12115	A7
	NBR	textile + copper wires	NBR/SBR	16	4	yes	EN 12115	A8
ering	CPE	textile	HNBR	10	4	yes		A9

A3



CARBOPRESS N/L 10 - 20

Suitable for fuel oils, petrol and diesel having an aromatic content not exceeded 50 % and also for grease.

Hose Construction

Tube:	Black, smooth,
	NBR rubber compound
Reinforcement:	Synthetic textile yarns
Cover:	Black, smooth, abrasion, oil, fuel,
	and weather-resistant, antistatic
	$(R < 1 M\Omega/m)$ special NBR rubber
	compound

Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil



- Dual pressure lines
- Also suitable for water and air in general service applications
- Design Factor 3:1
- B100 compatible

Tolerances According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series 64 + 47

	+							
Part Number			Max. Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
CARBOPRESS N/L 10								
IH30501001/100	5	12	1.0	150.0	10	0.12	40	Y
IH30511003/100	6	12	1.0	150.0	10	0.11	50	Y
IH30511002/100	6	13	1.0	150.0	10	0.14	50	Y
IH30501002/100	8	15	1.0	150.0	10	0.17	65	Y
IH30501003/100	10	17	1.0	150.0	10	0.20	80	Y
IH30501004/100	13	20	1.0	150.0	10	0.24	105	Y
IH30511004/100	16	23	1.0	150.0	10	0.29	130	Y
IH30501006/40	19	27	1.0	150.0	10	0.39	150	Y
IH30501007/50	25	35	1.0	150.0	10	0.63	200	Y
CARBOPRESS N/I	_ 20							
IH30502001/100	6	14	2.0	300.0	20	0.17	50	Ν
IH30502002/100	8	17	2.0	300.0	20	0.24	65	Ν
IH30502003/100	10	19	2.0	300.0	20	0.27	80	Y
IH30512006/100	13	23	2.0	300.0	20	0.38	105	Ν
IH30512010/40	16	26	2.0	300.0	20	0.44	130	Y
IH30512007/40	19	30	2.0	300.0	20	0.57	150	Ν
IH30512009/40	25	36	2.0	300.0	20	0.71	200	Ν

Bold printed part numbers are stock products.

Hose layline example

RUBBER HOSE CARBOPRESS W.P. bar	-Parker
 A4	Catalogue 4401/UK



Oil & Fuel

hvmatik

A – Oil & Fuel

CARBURITE 10

Designed for suction and delivery of mineral oils and fuels (with aromatic content not exceeding 50 %) in road and rail tankers, service stations and refineries.

Hose Construction

Tube:	Black, smooth, NBR rubber com- pound, resistant to oil and fuel with an aromatic content not exceeding 50 %
Reinforcement:	Synthetic textile fabrics and embedded steel wire helix
Cover:	Black, smooth, antistatic (R < 1 M Ω /m) NBR/SBR rubber compound, oil, fuel, abrasion, ageing and weather resistant

Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil

Bold printed part numbers are stock products.



- Also suitable for water and air in general service applications
- Crimped solution with 48 series and Large Bore series
- Vacuum 0.8 bar (600 mm Hg)
- Design Factor 3:1

Tolerances

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Fitting Series

48 (up to I.D. 50 mm) IF (from I.D. 60 mm)

Part Number			S Max	x. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36530099/40	19	29	1.0	150.0	10	0.61	120	Y
IH36531004/40	25	35	1.0	150.0	10	0.80	150	Y
IH36530201/40	30	40	1.0	150.0	10	0.92	180	Y
IH36531012/40	32	42	1.0	150.0	10	0.98	190	Y
H36530202/40	35	45	1.0	150.0	10	1.05	210	Y
IH36531002/40	38	48	1.0	150.0	10	1.13	240	Y
IH36530203/40	40	50	1.0	150.0	10	1.18	240	Y
IH36530212/40	42	52	1.0	150.0	10	1.22	252	Y
IH36530204/40	45	55	1.0	150.0	10	1.31	270	Y
IH36530205/40	50	60	1.0	150.0	10	1.46	300	Y
IH36530206/40	60	71	1.0	150.0	10	1.89	360	Y
IH36531001/40	63.5	75	1.0	150.0	10	2.09	380	Y
IH36530207/20	70	82	1.0	150.0	10	2.47	420	Y
IH36530208/20	75	87	1.0	150.0	10	2.68	450	Y
IH36530209/20	80	92	1.0	150.0	10	2.84	480	Y
IH36531003/20	90	104	1.0	150.0	10	3.64	540	Y
IH36530211/20	100	114	1.0	150.0	10	4.02	600	Ν
IH36531019/20	110	124	1.0	150.0	10	4.29	660	Ν
IH36531050/10	150	170	1.0	150.0	10	7.27	900	Ν

Hose layline example

RUBBER OIL HOSE CARBURITE 10 bar	-Parker
 A5	Catalogue 4401/UK



CARBOCORD EN 12115

According to EN 12115

Suitable for delivery of oil and fuel with an aromatic content not exceeding 50 %.

Hose Construction

Tube:	Black, smooth, NBR rubber com- pound, resistant to oil and fuel with an aromatic content not exceeding 50 %.
Reinforcement:	Synthetic textile fabrics and built-in copper wires to provide electrical continuity between both ends.
Cover:	Black, smooth, NBR/SBR rubber compound, antistatic (R < 1 M Ω /m), oil, fuel, abrasion, ageing and weather resistant.



- Meets TRbF 131 Teil 2 par 5.5 (flame resistance)
- Optimal for tank truck application
- Electrical continuity guaranteed by copper wires if correctly assembled
- Design Factor 4:1

Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Temperature	Range
-------------	-------

-25 °C (-13 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil

Bold printed part numbers are stock products.

Part Number	I.D. (mm)	O.D. (mm)	Max MPa	k. Working psi	Pressure bar	Weight kg/m	min. Bend Radius mm	in Stock
IH36522309/40	19	31	1.6	232.0	16	0.60	125	Ν
IH36522310/40	25	37	1.6	232.0	16	0.89	150	Y
IH36522311/40	32	44	1.6	232.0	16	1.00	175	Y
IH36522312/40	38	51	1.6	232.0	16	1.30	225	Y
IH36522313/40	50	66	1.6	232.0	16	2.00	275	Y
IH36522314/40	63.5	79	1.6	232.0	16	2.40	300	Y
IH36522315/40	75	91	1.6	232.0	16	2.80	350	Ν
IH36522316/40	100	116	1.2	180.0	12	3.80	450	Ν

Hose layline example

CARBOCORD EN 12115 NBR 1D I.D. – PN .. – BP .. bar Ω – TRbF 131 T2 p.5.5 – Quarter/Year – Parker

-Parker

A – Oil & Fuel

hymatik

CHEMIOEL EN 12115

According to EN 12115

Designed for suction and delivery of mineral oils and fuels with an aromatic content not exceeding 50 %.

Hose Construction

Tube:	Black, smooth, NBR rubber compound, resistant to oil and fuel with
	an aromatic content not exceeding
	50 %
Reinforcement:	Synthetic textile fabrics, embedded
	steel wire helix and built-in copper
	wire to facilitate the electrical con-
	nection between the hose and the
	end couplings
Cover:	Black, smooth, NBR/SBR rubber
	compound, antistatic
	(R < 1 M Ω /m), oil, fuel, abrasion,
	ageing and weather resistant

Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil

Bold printed part numbers are stock products.

1	1	1	1	1	10	1	
					11		6
<u>)</u>						$\mathbf{\Lambda}$	
<u>.</u>	N	1	<u> </u>	Υ.	1	11	V

- Meets TRbF 131 Teil 2 par 5.5 (flame resistance)
- Optimal for tank truck application
- Crimped solution with 48 series and Large Bore series
- Vacuum 0.9 bar for ID up to 63.5 mm then 0.8 bar
- Design Factor 4:1

Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Fitting Series

48 (up to I.D. 50 mm) IF (from I.D. 63.5 mm)

Part Number			Max	x. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36530229/40	19	31	1.6	232.0	16	0.70	125	Y
IH36530230/40	25	37	1.6	232.0	16	0.90	150	Y
IH36530231/40	32	44	1.6	232.0	16	1.20	175	Y
IH36530232/40	38	51	1.6	232.0	16	1.50	225	Y
IH36530233/40	50	66	1.6	232.0	16	2.30	275	Y
IH36530234/40	63.5	79	1.6	232.0	16	2.80	300	Y
IH36530235/40	75	91	1.6	232.0	16	3.30	350	Y
IH36530236/20	100	116	1.2	180.0	12	4.70	450	Y

Hose layline example

CHEMIOEL EN 12115:2011 - NBR1 - SD - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year -Parker

A7



CERVINO EN 12115

According to EN 12115

Suction and delivery of mineral oils and fuels, with an aromatic content not exceeding 50 %. The special compounds make the hose specially indicated for outdoor applications, when low temperature conditions are implicated.

Hose Construction

- Tube:Black, smooth, NBR rubber compound, resistant to oil and fuel with
an aromatic content not exceeding
50 %
- **Reinforcement:** Synthetic textile fabrics, embedded steel wire helix and built-in copper wire to facilitate the electrical connection between the hose and the end couplings



- Technology nitrogen tested for safe air applications
- Cold bend tested as per ISO 4672 without cracks
- Good result on cover abrasion test as per ISO 6945
- Crimped solution with 48 series and Large Bore series
- Vacuum 0.8 bar (600 mm Hg)
- Design Factor 4:1

Temperature Range

-40 °C (-40 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil

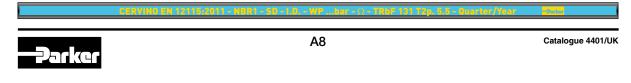
Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Fitting Series 48 (up to I.D. 50 mm) IF (from I.D. 63.5 mm)

Part Number			Same Max	k. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36530430/40	50	66	1.6	232.0	16	2.30	200	Ν
IH36530431/40	63.5	79	1.6	232.0	16	2.80	250	Ν
IH36530432/40	75	91	1.6	232.0	16	3.30	300	Ν
IH36530433/40	100	116	1.2	180.0	12	4.70	400	Ν

Hose layline example





Oil & Fuel

E-Z FORM™ HT

Parker Global Product

Extremely flexible, lightweight, high temperature petroleum-based oil suction/return hose designed to resist cracking and deterioration for the extreme heat generated in Tier IV engine. It may also be used in non-SAE power steering applications (as a low pressure return line only). The lightweight Greek corrugated hose construction incorporates a wire helix that provides full suction capability. The unique corrugations are tightly pitched and precisionengineered, providing extreme flexibility compared to the traditional rounded corrugation profile. The cover is resistant to high temperature oil in high temperature environments.

Hose Construction

Tube:	Black CPE
Reinforcement:	Multiple textile braids with helix
Cover:	Black Hydrogenate NBR, Greek
	corrugated finish

Bold printed part numbers are stock products.



- Saves time and costs thanks to easy and quick assembly
- Superior kink resistance, minimal force to bend, outstanding flexibility
- In buses, cranes, trucks and mobile/heavy duty off-road equipment
- Design Factor 4:1
- Vacuum: 0,9 bar

Temperature Range

-40 °C (-40 °F) to +150 °C (+302 °F)

Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series

min. \bigcirc \bigcirc Ÿ in J Max. Working Pressure Weight Bend Part Number Stock Radius I.D. (mm) **O.D.** (mm) MPa kg/m psi bar mm 7399-0500025 12.7 23.8 1.0 0.43 150 10 23 Υ 0.54 7399-0625025 15.9 27.0 1.0 150 10 33 Υ 7399-0750025 19.1 30.0 1.0 150 10 0.56 36 γ 7399-0875025 22.2 32.8 1.0 150 10 0.61 36 Υ 7399-1000025 25.4 36.0 150 10 0.66 36 1.0

coils of 7.62 m (25 feet)

Hose layline example

SERIES 7399 E-Z FORM HT HOSE (ID) 150 PSI MAX WP MADE IN USA

Catalogue 4401/UK

A – Oil & Fuel

A9



Notes
alogue 4401/UK







ENGINEERING YOUR SUCCESS.



B – Automotive & Boat

Hose	ID Range (mm)	Temp. Range (°C)	Application
RADIOR 10	7 - 15	-30 / +100	cooling line system
E-Z FORM™ GS	12.7 - 102	-45 / +125	high flexible hose for coolant line system
RADIOR DIN 6	10 - 50	-40 / +125	cooling line system
Series 6722	6 - 25	-54 / +177	Heater and cooling line system
AIRBRAKE DIN 74310	9 - 13	-40 / +70	breaking system
Series 395 SAE J 30R7	4.8 - 12.7	-40 / +125	car & motorbike fuel system
TBSE	4 - 10	-30 / +100	car & motorbike fuel system
ТВЕ	3 - 7.5	-20 / +90	car & motorbike fuel system
CARBOBLUE N/L 10	16 - 25	-40 / +100	nox reducing system
CARBOBLUE N/L 20	6 - 25	-40 / +100	nox reducing system
WAVEMASTER™	6.3 - 19	-29 / +100	marine barrier fuel hose
SM/TR 311	19 - 50	-20 / +80	coolant line
SUPER-FLEX [®] FL-7	4.7 - 19.1	-40 / +125	low permation fuel hose
SUPER-FLEX [®] FL	4.7 - 15.9	-30 / +125	low permation fuel hose

Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page
EPDM	textile	EPDM	10	3			B4
EPDM	textile	EPDM	5	4	yes	SAE J 20R2 - D1	B5
EPDM	textile	EPDM	6	3			B6
SILICONE	textile	SILICONE	5.7	3		SAE J20R3 Class A	B7
EPDM	textile	EPDM	10	4		DIN 74310	B8
NBR	textile	CR	2.4 5.2	5		SAE 30 R7	В9
NBR	textile	NBR	10	3			B10
NBR	textile		10	3			B11
EPDM	textile	EPDM	10	3			B12
EPDM	textile	EPDM	20	3			B12
NYLON	textile	NBR/PVC	7	4	light	Refer to the page	B13
NBR	textile	NBR/CR	3	> 3.5	yes	EN ISO 7840 A1	B14
NBR/THV	textile	CPE	6.9	5	light	SAEJ30R7/J30R14T2	B15
NBR/ barrier	textile	CPE	6.9	5	light	AEJ30R7/J30R14T2	B16

0)

B – Automotive & Boat

Catalogue 4401/UK

Parker





RADIOR 10

Flexible rubber hose for delivery of hot water in heating and cooling of automotive LPG and methane systems.

Hose Construction

Tube:	Black, smooth EPDM nitrosamine
	free rubber compound
Reinforcement:	Synthetic textile yarns
Cover:	Smooth, black, heat, ageing and
	weather-resistant EPDM nitrosa-
	mine free rubber compound

Temperature Range

-30 °C (-22 °F) to + 100 °C (+212 °F) with peaks +120 °C (+248 °F)



Tolerances According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series 64 + 47

Bold printed part numbers are stock products.

Part Number	I.D. (mm)	O.D. (mm)	Max MPa	k. Working psi	Pressure bar	Weight kg/m	min. Bend Radius mm	in Stock
IH30114029/100	7	13	1.0	150.0	10	0.13	50	Y
IH30114030/100	15	23	1.0	150.0	10	0.35	90	Y

RUBBER HOSE RADIOR 10 bar I.D. mm	-Parker
 B4	Catalogue 4401/UK

hvmatik

E-Z FORM™ GS

Designed to handle air, coolant, mild chemicals and water. Extremely flexible, lightweight provides full suction capability and a path to conduct a static electrical charge to ground. The unique Greek cover corrugations provides minimal forceto-bend, superior kink resistance, and maximum flexibility for ease of handling, used where formed hose might normally be required.

Hose Construction

Tube:	Black EPDM, antistatic rubber
	compound
Reinforcement:	Multiple textile plies with wire helix
Cover:	Black EPDM rubber compound
	resistant to weathering, greek
	corrugated finish

Temperature Range

-45 °C (-50 °F) to +125 °C (+257 °F)

Bold printed part numbers are stock products.

177		1	T	1	1	Ĩ	1	1	"	(()	1	1	1
			ij	ł	ł			i					
1111	11	1	1	11		1	1	11	11	[]	Jay	1	

- Premium grade high temperature EPDM materials
- Saves time and costs thanks to easy and quick assembly
- Superior kink resistance, minimal force to bend, outstanding flexibility
- Performance equal to SAE J20R2-D1
- Design Factor 4:1
- Vacuum: 0.9 bar

Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series 48 (up to I.D. 51 mm)

Part Number	I.D. (mm)	0.D. (mm)	Max MPa	Max. working Pressure			min. Bend Radius mm	in Stock
IH73950500/10	12.7	23.8	0.5	75	5	0.4	23	Y
IH73950625/10	15.9	27	0.5	75	5	0.49	33	Y
IH73950750/10	19.1	30	0.5	75	5	0.52	36	Y
IH73951000/10	25.4	36	0.5	75	5	0.61	36	Y
IH73951125/10	29	38	0.5	75	5	0.62	46	Y
IH73951250/10	32	43	0.5	75	5	0.75	56	Y
IH73951375/10	35	46	0.5	75	5	0.79	71	Y
IH73951500/10	38	49	0.5	75	5	0.85	74	Y
IH73952000/10	51	63	0.5	75	5	1.44	117	Y
IH73952250/10	57	70	0.5	75	5	1.61	165	Y
IH73952375/10	60	73	0.5	75	5	1.64	175	Y
IH73952500/10	63.5	76.5	0.5	75	5	1.74	183	Y
IH73953000/10	76	90	0.5	75	5	2.23	223	Y
IH73954000/10	102	116	0.5	75	5	3.28	340	Y

Parker	SERIES 7395 E-Z FORM GS HOSE 75 PSI MAX WP	
	B5	Catalogue 4401/UK



RADIOR DIN 6 (COILS)

Designed for cooling systems of automotive engines and stationary engines and for refrigerant systems.

Hose Construction

Tube:	Black, smooth, antistatic, heat
	resistant EPDM rubber compound
	according to DIN 73411 - 1996*
Reinforcement:	Synthetic textile fabrics yarns
Cover:	Black, smooth, wrapped finish,
	heat, ageing and weather-resistant
	EPDM rubber compound
	according to DIN 73411 - 1996*

*The tube and the cover compounds are according to DIN 73411 - 1996 in the following principal areas: tensile, strength, density, hardness, laceration, swellings, aging and dry residue.

Temperature Range

-40 °C (-40 °F) to +125 °C (+257 °F) with peaks to +140 °C (+284 °F)

Bold printed part numbers are stock products.

/ /	1	K	6-6	
			E1	

- Performances fully compliant to DIN73411
- Compounds according to DIN 73411 for: tensile, strength, density, hardness, laceration, swellings, aging and dry residue
- Specific for cooling system at high temperature
- For Automotive and general industries application
- Design Factor 3:1
- Available on request in Cut Lenght of 1 m

Tolerances

I.D. ≤ 25 mm

```
according to UNI EN ISO 1307
```

I.D. > 25 mm

according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number		Max. Working Pressure					min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30836101/40	10	17	0.6	90.0	6.0	0.17	-	Y
IH30836103/40	13	20	0.6	90.0	6.0	0.21	-	Y
IH30836104/40	15	22	0.6	90.0	6.0	0.23	-	Y
IH30836105/40	16	23	0.6	90.0	6.0	0.25	-	Y
IH30836106/40	18	25	0.6	90.0	6.0	0.27	-	Y
IH30836107/40	20	27	0.6	90.0	6.0	0.30	-	Y
IH30836108/40	22	29	0.6	90.0	6.0	0.33	-	Y
IH30836109/40	25	34	0.6	90.0	6.0	0.48	-	Y
IH36836110/40	28	36	0.6	90.0	6.0	0.52	-	Y
IH36836111/40	30	38	0.6	90.0	6.0	0.55	-	Ν
IH36836112/40	32	40	0.6	90.0	6.0	0.58	-	Y
IH36836113/40	35	43	0.6	90.0	6.0	0.63	-	Ν
IH36836114/40	38	48	0.6	90.0	6.0	0.88	-	Y
IH36836115/40	40	50	0.6	90.0	6.0	0.92	-	Ν
IH36836116/40	42	52	0.6	90.0	6.0	0.96	-	Ν
IH36836117/40	45	55	0.6	90.0	6.0	1.02	-	Ν
IH36836119/40	50	60	0.6	90.0	6.0	1.11	-	Y

RADIOR DIN - A - I.D. x TH - EP	DM / P / EPDM – 6 bar – 125°C <mark>– Parker</mark>	(yellow ink x LL and yellow embosse	d x MM) Y/W (with traceability code)
	B6	;	Catalogue 4401/UK



B – Automotive & Boat

hvmatik

SERIES 6722

Parker Global Product

Extruded heater hose that meets or exceeds SAEJ20R3 Class A specifications. This product is utilized as standard equipment on trucks, cars and buses. Since this product is extruded it can be offered in long lengths, which saves money by reducing scrap. These hoses are resistant to coolant solutions, cracking, ozone, cold leaks, peeling and aging.

Hose Construction

Tube:	Brick Red Silicone rubber com-
	pound, heat and cold resistant
Reinforcement:	High-temperature-resistant plies
Cover:	Blue, Silicone rubber resistant to
	weathering, ozone and cracking

Temperature Range

-54 °C (-65 °F) to +177 °C (+350 °F)

Bold printed part numbers are stock products.

uct	SERIES 6722
cars	
can	Specific for Heater and Cooling
ey	system on cars, trucks and buses
t to	 For Automotive and general
S,	industries application
	According to SAE J20R3 Class A
	and SAE J2387
n-	 Design Factor 3:1
it	
ies	
to	
ng	Tolerances
	According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number			Max. Working Pressure			B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
6722-0250050	6	13	0.57	83	5.7	0.150	13	Y
6722-0375050	10	18	0.57	83	5.7	0.196	19	Y
6722-0500050	13	21	0.57	83	5.7	0.251	38	Y
6722-0625050	16	24	0.57	83	5.7	0.357	44	Y
6722-0750050	19	27	0.46	67	4.6	0.385	70	Y
6722-1000050	25	34	0.40	58	4.0	0.506	127	Y

coils of 15.24 m (50 feet)

Hose layline example

PARKER SILICONE SERIES 6722 -65 °F to +350 °F (DATE CODE)

B7



AIRBRAKE DIN 74310

According to DIN 74310 Parker Global Product

Widely used in automotive air brake systems.

Hose Construction

Tube:	Black, smooth EPDM nitrosamine
	free rubber compound
Reinforcement:	Stress-resistant, synthetic textile
	yarns
Cover:	Black, abrasion, ageing and weath- er-resistant, smooth EPDM nitrosa- mine free rubber compound

Temperature Range

-40 °C (-40 °F) to + 70 °C (+158 °F)



- Recommended DIN 74304 and DIN 74325 fittings and DIN 3017 clamps
- Automotive application
- Nitrosamine free compounds
- Design Factor 4:1

Tolerances

According to DIN 74310 Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number						B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30315103/40	9	16	1.0	150.0	10	0.19	65	Y
IH30315116/40	11	18	1.0	150.0	10	0.22	70	Y
IH30315115/40	13	25	1.0	150.0	10	0.49	100	Y

—Parker I.D. mm DIN 74310 - Year/Quarter with traceability code	
 B8	Catalogue 4401/UK

B – Automotive & Boat

hvmatik

SERIES 395 SAE J30R7

Parker Global Product

Series 395 is a fuel line/vapor emission hose for refined fuels such as biodiesel (to B20 in dedicated and non-dedicated service), diesel, ethanol and gasoline. The hose is flexible for easy routing in and around small engines and small engine compartments, and the cover is resistant to abrasion, oil and weathering.

Hose Construction

Tube:	Black nitrile
Reinforcement:	Multiple textile plies
Cover:	Black chloroprene; smooth finish

Temperature Range

-40 °C (-40 °F) to +125 °C (+257 °F)



- Low pressure fuel lines, vapor emission service
- B20, diesel, ethanol, gasoline
- Agricultural equipment, autos, buses, construction equipment, off-road equipment
- Design factor 5:1

Tolerances

According to SAE J30 R7 Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			Max. Working Pressure			B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
39553	4.8	10.3	0.52	75	5.2	0.100	50.8	Ν
39550	6.4	12.7	0.34	50	3.4	0.164	50.8	Y
39551	7.9	14.3	0.34	50	3.4	0.166	76.2	Y
39552	9.5	15.9	0.34	50	3.4	0.200	88.9	Y
39554	12.7	19.8	0.24	35	2.4	0.260	101.6	Y

Supplied in reels of 250 feet each (76.2 m), with max 2 lengths at least 25 feet (7.62 m) long

Hose layline example

(ID) FUEL/VAPOR LINE SAE J30R7 (DATE CODE)

B9



Automotive & Boat (Co)

TBSE

Designed for general applications in fuel systems where low permeability levels are required. Suitable for leaded and unleaded fuels and diesel.

Hose Construction

Tube:	Black, oil and fuel resistant, smooth, antistatic, NBR
	rubber compound
Reinforcement:	Synthetic textile yarns
Cover:	Black, oil, fuel, abrasion, weather-
	resistant, smooth, antistatic,
	NBR rubber compound

Temperature Range

-30 °C (-22 °F) to +100 °C (+212 °F)



- Antistatic cover and tube compounds
- Low permeability
- Suitable for B20 and E100 up to 70 °C
- Available packaging in reels for display stand
- Design Factor 3:1

Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number	I.D. (mm)	0.D. (mm)	Max MPa	k. Working∣ ∣ psi	Pressure bar	Weight kg/m	min. Bend Radius mm	in Stock
Coils	()							
IH30871001/100	4	9	1.0	150.0	10	0.07	30	Y
IH30871011/100	5	10	1.0	150.0	10	0.08	40	Y
IH30871021/100	6	13	1.0	150.0	10	0.14	55	Y
IH30871031/100	7	13	1.0	150.0	10	0.13	55	Y
IH30871041/100	7.5	14	1.0	150.0	10	0.15	65	Y
IH30871051/100	10	16	1.0	150.0	10	0.17	75	Y
Reels								
IH30871001/15-R90*	4	9	1.0	150.0	10	0.07	30	Y
IH30871011/15-R90*	5	10	1.0	150.0	10	0.08	40	Y
IH30871021/15-R90*	6	13	1.0	150.0	10	0.14	55	Y
IH30871031/15-R90*	7	13	1.0	150.0	10	0.13	55	Y
IH30871041/15-R90*	7.5	14	1.0	150.0	10	0.15	65	Y
IH30871051/10-R60**	10	16	1.0	150.0	10	0.17	75	Y

* box quantity = 6 x 15 m (reels)
** box quantity = 6 x 10 m (reels)

Hose layline example

ORIGINAL ECO 1 TBSE MADE IN ITALY -Parker	
 B10	Catalogue 4401/UK

Bold printed part numbers are stock products.

hymatik

B – Automotive & Boat

TBE

Designed for particular applications in fuel systems where textile cover is requested. Suitable for leaded and unleaded fuels and diesel.

Hose Construction

Tube:	Black, oil and fuel resistant, smooth
	NBR rubber compound

Reinforcement/

Cover: High tensile polyester textile overbraid, resistant to abrasion, fuel, oil and weathering

Temperature Range

-20 °C (-4 °F) to +90 °C (+194 °F)



- Available in reels only
- Suitable for B20 and E100 up to 70 °C
- Designed for motorbike fuel supply
- Design Factor 3:1

Tolerances

On inside diameter: Length tolerance: ±1%

+ 0 / - 0.5 mm

Bold printed part numbers are stock products.

Part Number	I.D. (mm)	O.D. (mm)	Max MPa	k. Working psi	Pressure bar	Weight kg/m	min. Bend Radius mm	in Stock
IH11001300/15-R90*	3	7	1.0	150.0	10	0.04	30	Y
IH11001345/15-R90*	7.5	14.5	1.0	150.0	10	0.13	65	Y

ORIGINAL TB EGO MADE IN ITALY	
 B11	Catalogue 4401/UK



CARBOBLUE N/L 10 - 20

Parker Global Product

Carboblue is specially designed for applications where there is a requirement for extracting NOx (nitrogen oxide and its mixtures that emit polluted substances into the environment during air combustion) and dramatically reducing exhaust gas from diesel engines. These objectives are included in European parameters EURO IV, EURO V and EURO VI.

Hose Construction

Tube:

Black, smooth, antistatic $(R < 1 M\Omega/m)$ and sulphur free EPDM rubber compound nitrosamine free with peroxide curing.

Extensive tests on tensile stress, cold bending, heat, and laceration resistance on compound in contact with the additive did not show alteration of its state.

Reinforcement:Synthetic textile fabricsCover:Black, smooth, antistatic
 $(R < 1 M\Omega/m)$, EPDM rubber compound nitrosamine free, ageing,
heat and weather resistant

Bold printed part numbers are stock products.



- Compatibility approved by Urea (AUS32) manufacturer and third part laboratory approved for ISO 22241
- Environmental friendly
- Nitrosamine free
- Design Factor 3:1

Temperature Range

-40 °C (-40 °F) +100 °C (+212 °F) with peaks up to +120 °C (+248 °C)

Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series 64 + 47

Part Number			S Max	k. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
CARBOBLUE N/L 10								
IH30515030/100	16	23	1.0	150.0	10	0.27	100	Ν
IH30515031/80	19	27	1.0	150.0	10	0.37	115	Y
IH30515032/50	25	36	1.0	150.0	10	0.68	150	Ν
CARBOBLUE N/L 20								
IH30515043/100	6	12	2.0	300.0	20	0.11	40	Y
IH30515044/100	8	15	2.0	300.0	20	0.16	50	Y
IH30515045/100	10	17	2.0	300.0	20	0.19	60	Ν
IH30515046/100	13	20	2.0	300.0	20	0.23	80	Ν
IH30515040/80	16	26	2.0	300.0	20	0.43	100	Y
IH30515041/80	19	30	2.0	300.0	20	0.56	115	Ν
IH30515047/50	25	37	2.0	300.0	20	0.76	150	Ν

RUBBER HOSE CARBOBLUE W.P. bar	-Parker
 B12	Catalogue 4401/UK

(2)

<u>B – Automotive & Boat</u>

hvmatik

WAVEMASTER™

Parker Global Product

Premium low permeation fuel tank feed and vent hose for refined fuels such as biodiesel, alcohol blended fuels, diesel, ethanol and gasoline. Specially designed for marine applications. The hose incorporates a thermoplastic barrier to resist fuel permeation and the cover is resistant to abrasion, oil and weathering.

Hose Construction

Tube:	Translucent Nylon insulating
Reinforcement:	Multiple textile plies
Cover:	Black nitrile/PVC; smooth finish
	insulating

Temperature Range -29 °C (-20 °F) to +100 °C (+212 °F)



- Meets or exceeds EN ISO 7840:2013 A1, ABYC, CARB, CE, EPA, NMMA, SAE J1527 A1-15, USCG A1
- Flexible for easy routing in engine compartments
- Ideal for feed line to fuel tanks where liquid fuel is continuously in the hose under normal conditions
- Biodiesel up to B100
- Design Factor 4:1
- Vacuum: 0.35 bar

Tolerances

According to EN ISO 7840 Refer to Technical Handbook on page TH34

Bold printed part nu	mbers are sto	ck products.						
Part Number			S Ma	x. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
7165-25250	6.3	13.6	0.7	100	7.0	0.16	63.5	Ν
7165-31250	7.9	15.5	0.7	100	7.0	0.20	63.5	Y
7165-38250	9.5	17.3	0.7	100	7.0	0.23	63.5	Y
7165-50250	12.7	20.9	0.7	100	7.0	0.30	114.3	Y
7165-63250	16.0	25.4	0.52	75	5.2	0.46	114.3	Y
7165-75250	19.0	28.6	0.52	75	5.2	0.51	114.3	Ν

*supplied in reels of 76.2 m (250 feet) with max 2 lengths at least 15.24 m (50 feet) long

Hose layline example

Parker PARKER WAVEMASTER SERIES 7165 MARINE FUEL HOSE - EPA *PKHPLINE165 - CARB RM-17-006 SAE J1527 USCG TYPE A1-15 ISO 7840 A1

B13



SM TR 311

According to EN ISO 7840 A1

Designed and approved for use in water cooling exhaust gas systems and also as fire resistant fuel hose for craft. Suitable for general loading and unloading oils and fuel service.

Hose Construction

Tube:	Black, smooth, oil and fuel resistant
	NBR rubber compound
Reinforcement:	Synthetic textile fabrics, embedded
	steel wire helix and built-in copper
	wire to facilitate the electrical con-
	nection between the hose and the
	end couplings
Cover:	Smooth, black, selfextinguish-
	ing NBR/CR rubber compound
	resistant to heat, oil, abrasion and
	marine environment. OND version is
	corrugated.



- Type approval by RINA
- Designed for exhaust gas and refueling
- Suitable for craft according to European Directive 2013-53-EU
- Fire resistant fuel hose
- Design Factor > 3.5:1
- Vacuum 0.8 bar

Tolerances

According to EN ISO 7840:2013 Refer to Technical Handbook on page TH34

Note

Ondulated version on request

Temperature Range

-20 °C (-4 °F) to +80 °C (+176 °F)

Part Number			S Max	k. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36971010/40	19	29	0.3	43.5	3	0.59	60	Ν
IH36971011/40	25	35	0.3	43.5	3	0.7	75	Ν
IH36971012/40	32	42	0.3	43.5	3	0.84	100	Ν
IH36971013/40	38	48	0.3	43.5	3	1.05	115	Y
IH36971014/40	45	55	0.3	43.5	3	1.25	145	Ν
IH36971015/40	50	60	0.3	43.5	3	1.65	175	Y

Bold printed part numbers are stock products.

RUBBER HOSE SM/TR 3	11 - EXHAUST AND FUEL HOSE ISO 7840:2013 A1 E10/B10 COMP	ATIBLE CE - DNXX - 2015 — Parker
	B14	Catalogue 4401/UK

(C)

<u>B – Automotive & Boat</u>

hvmatik

SUPER-FLEX® FL-7

Parker Global Product

Fuel line/vapor emission hose for refined fuels such as biodiesel, diesel, ethanol and gasoline. The hose incorporates a THV barrier to resist permeation, multiple aramid plies of reinforcement for coupling retention, durability and kink resistance, the cover is resistant to abrasion, oil and weathering. The hose is flexible for easy routing in and around small engines and small engine compartments. Permeation value less than 15g/m²/day.

Hose Construction

Tube:	Black nitrile and translucent
	THV barrier, non conductive
Reinforcement:	Multiple aramid plies
Cover:	Black CPE, smooth finish

Temperature Range

-40 °C (-40 °F) to +125 °C (+ 257 °F)

Bold printed part numbers are stock products.

-Parker SERIES 389		
--------------------	--	--

- Meets CARB 2006 SORE, EPA, SAE J30R7, SAE J30R14T2
- for blowers, grinders, mowers, offroad engines, pressure washers, saws, agricultural, buses, construction
- Biodiesel up to B20
- Design Factor 5:1
- Vacuum 0.81 bar for ID up to 9.8 mm then 0.34 bar

Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

•								
Part Number		O.D. (mm)	Max. Working Pressure		Weight kg/m	min. Bend Radius mm	in Stock	
	. ,			-				
38903	4.8	10.3	0.69	100	6.9	0.10	33.0	Y
38904	6.4	12.7	0.69	100	6.9	0.13	38.1	Y
38905	7.9	14.3	0.69	100	6.9	0.16	50.8	Y
38906	9.8	15.8	0.69	100	6.9	0.16	63.5	Y
38908	12.7	19.8	0.69	100	6.9	0.26	101.6	Y
38910	15.9	23.9	0.69	100	6.9	0.36	127.0	Ν
38912	19.1	28.6	0.69	100	6.9	0.52	152.4	Ν

Supplied in reels of 250 feet each (76.2 m), with max 2 lengths at least 25 feet (7.62 m) long

Hose layline example

-Darker SERIES 389 SUPER-FLEX® FL-7 (ID) SAE J30R7/R14T2 FUEL LINE (x)PKHPLINE389 EPA COMPLIANT 15 g/m2/day CARB Q-08-013

-Parker

B15



SUPER-FLEX® FL

Parker Global Product

Fuel line/vapor emission hose for refined fuels such as diesel, ethanol and gasoline. The hose incorporates a thermoplastic barrier to resist permeation and the cover is resistant to abrasion, oil and weathering. The hose is flexible for easy routing in and around small engines and small engine compartments. Permeation value less than 15g/m²/day.

Hose Construction

Tube:	Black nitrile and translucent thermoplastic barrier,
	non conductive
Reinforcement:	One textile braid or multiple
Cover:	textile plies Black CPE, smooth finish

Temperature Range

-30 °C (-34 °F) to +125 °C (+ 257 °F)

Bold printed part numbers are stock products.

SERIES 397	
------------	--

- Meets CARB 2006 SORE, EPA, SAE J30R7/J30R14T2 (Performance)
- for blowers, grinders, mowers, offroad engines, pressure washers, saws, agricultural, autos, buses
- Biodiesel up to B100
- Design Factor 5:1
- Vacuum 0.81 bar for ID up to 9.5 mm then 0.34 bar

Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number			Max. Working Pressure			B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
39703	4.7	11.1	0.69	100	6.9	0.10	33.0	Y
39704	6.4	12.7	0.69	100	6.9	0.13	38.1	Y
39705	7.9	14.2	0.69	100	6.9	0.16	50.8	Y
39706	9.5	15.9	0.69	100	6.9	0.16	63.5	Y
39708	12.7	17.7	0.69	100	6.9	0.26	101.6	Y
39710	15.9	23.9	0.24	35	2.4	0.33	127.0	Ν

Supplied in reels of 250 feet each (76.2 m), with max 3 lengths at least 25 feet (7.62 m) long

Hose layline example

Parker SERIES 397 (P/N) SUPER-FLEX® FL (ID) LOW PERMEATION FUEL LINE CARB (x) PKHPLINE397 EPA COMPLIANT 15 g/m2/day C-U

-Parker



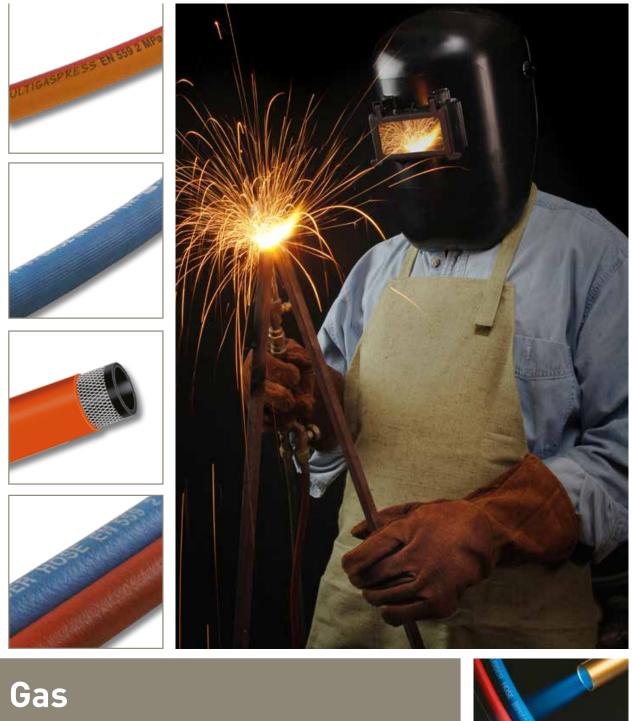
Notes	

Catalogue 44



Notes
alogue 4401/UK









ENGINEERING YOUR SUCCESS.



Gas

C – Gas

Hose	ID Range (mm)	Temp. Range (°C)	Application
AUTOGENE EN ISO 3821 NR/L - NB/L 20	6.3 - 10	-25 / +80	welding process
PROPANPRESS EN ISO 3821 NA/L 20	6.3 - 10	-30 / +70	propan gas delivery
CARBO G NW/L 10 – NB/R 10	8 - 13	-20 / +90	household applicances



hymatik

Gas 🚺

Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page
EPDM/ SBR	textile	EPDM	20	3		EN ISO 3821	C4
NBR/NR	textile	EPDM	20	3		EN ISO 3821	C5
NBR	textile	EPDM	10	3		UNI CIG 7140	C6

C - Gas

C3



AUTOGENE EN ISO 3821 NR/L - NB/L 20

According to EN ISO 3821

Designed for delivery of welding and allied process gases.

Hose Construction

Tube:	Black, smooth EPDM rubber com-
	pound resistant to Acetylene gas
	(Red cover). Black, smooth EPDM/
	SBR rubber compound resistant
	to Oxygen gas (Blue cover). Not
	suitable for LPG, good resistance to
	ignition (Red and Blue)
Reinforcement:	Synthetic textile yarns
Cover:	Smooth, red (NR) or blue (NB)
	EPDM rubber compound resistant
	to abrasion, ageing hot surfaces
	and incandescent particles



- For welding in industrial and domestic application
- Colored cover following specs indication: Red for Acetylene and Blue for Oxygen
- Exceeds the standard on backfire test
- Excellent flexibility
- Design Factor 3:1

Tolerances

According to EN ISO 3821 Refer to Technical Handbook on page TH34

Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F)

Bold printed part numbers are stock products.

Part Number			Max	Max. Working Pressure		B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
AUTOGENE EN ISO 3821 NR/L 20								
IH30412803/40	6.3	13.3	2.0	300.0	20	0.15	40	Ν
IH30412914/100	8	15	2.0	300.0	20	0.17	40	Y
IH30412716/40	9	16	2.0	300.0	20	0.19	45	Ν
IH30412716/100	9	16	2.0	300.0	20	0.19	45	Y
IH30413221/40	10	17	2.0	300.0	20	0.20	50	Y
IH30413221/100	10	17	2.0	300.0	20	0.20	50	Ν
AUTOGENE EN ISC) 3821 NB/L	20						
IH30412703/40	6.3	13.3	2.0	300.0	20	0.15	40	Y
IH30412915/100	8	15	2.0	300.0	20	0.17	40	Y
IH30412707/40	9	16	2.0	300.0	20	0.22	50	Ν
IH30412707/100	9	16	2.0	300.0	20	0.22	50	Y
IH30413220/40	10	17	2.0	300.0	20	0.24	50	Y

IMPORTANT!

Welding applications can be hazardous. Please take all the necessary safety precautions.

RUBBER HOSE - EN ISO 3821 - 2 MPa (20 bar) - I.D. (Year with traceability code)	
RUBBER HOSE – EN ISO 3821 – 2 MPa (20 bar) – I.D. (Year with traceability code)	-Parker MCXX
 C4	Catalogue 4401/UK



Bold printed part numbers are stock products.

Part Number			Max. Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)		-		kg/m	mm	
IH30413456/100	6.3	13.3	2.0	300.0	20	0.16	50	Y
IH30413457/100	8	15	2.0	300.0	20	0.18	65	Y
IH30413459/100	8.5	16	2.0	300.0	20	0.21	70	Y
IH30413458/100	10	17	2.0	300.0	20	0.22	80	Y

RUBBER HOSE PROPANPRESS EN ISO 3821 - 2MPa (20 bar) - I.D. (Year with the traceability code)	-Parker MCXX
 C5	Catalogue 4401/UK



CARBO G NW/L 10 – NB/R 10

According to UNI 7140

Connection of household appliances to the gas line (NW/L) or to LPG bottles (NB/R).

Hose Construction

Black, smooth NBR rubber com-
pound, suitable for Domestic Gas
Synthetic textile yarns
White (NW) or blue (NB), ageing-
resistant, smooth (/L) or ribbed (/R)
EPDM rubber compound

Temperature Range

-30 °C (-22 °F) to +90 °C (+194 °F)



- Quarterly tested by IMQ
 (Italian Institute of Quality Approval)
- Low permeability
- Superior tensile strength
- White smooth cover for indoor and blue ribbed cover for outdoor
- Design Factor 3:1

Tolerances

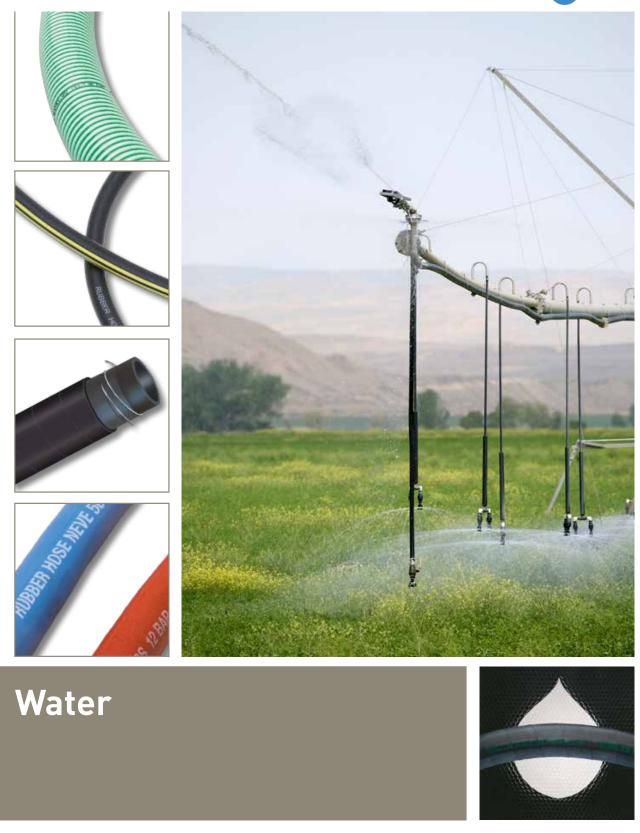
According to UNI 7140 Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			Max. Working Pressure		Weight	min. Bend Radius	in Stock	
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
CARBO G NB/R 10								
IH30551594/100	8	13	1.0	150.0	10	0.145	45	Y
CARBO G NW/L 10								
IH30551600/100	13	20	1.0	150.0	10	0.310	70	Y

	CARBO/G UNI 7140 - CL1 - TIPO A1 - DN16 - 0,2 bar - IMQ - da sostituire entro il 2019	Parker	MCXX
	CARBO/G UNI 7140 - CL1 - TIPO A1 - DN8 - 0,2 bar - IMQ - da sostituire entro il 2019	Parker	мсхх
Parker	C6	Catalo	ogue 4401/UK







ENGINEERING YOUR SUCCESS.



D – Water

Hose	ID Range (mm)	Temp. Range (°C)	Application
FUCINO 20	50 - 120	-30 / +80	water, non aggressive liquids
PRESCORD N/R 10	8 - 25	-30 / +80	water, non aggressive liquids
IDRO 10	25 - 75	-30 / +80	water, non aggressive liquids
BEVERA 10	19 - 203	-30 / +80	water, non aggressive liquids
MULTIREX	19 - 150	-10 / +60	water, non aggressive liquids





Water

Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page	
SBR	textile	SBR	20	3			D4	
SBR	textile	SBR/EPDM	10	3			D5	
SBR	textile	SBR	10	3			D6	
SBR	textile	SBR	10	3	yes		D7	
PVC	PVC wire	PVC	7	3	yes		D8	
	·							

-Parker





FUCINO 20

Suitable for a variety of industrial applications, where a flexible and lightweight discharge hose for water and non-aggressive liquids are required. Specifically designed for irrigation equipment and submersible pumps.

Hose Construction

Black, smooth SBR nitrosamine free
rubber compound
Synthetic textile fabrics
Black, abrasion, ageing and
weather-resistant SBR nitrosamine
free rubber compound

Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)

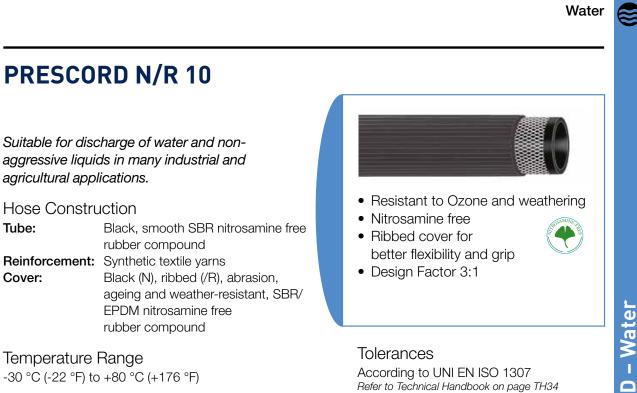


According to RMA steel mandrel Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			Max. Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36203276/40	50	58	2.0	300.0	20	0.94	-	Ν
IH36203278/40	60	68	2.0	300.0	20	1.10	-	Ν
IH36203280/20	80	91	2.0	300.0	20	2.05	-	Ν
IH36203282/20	100	113	2.0	300.0	20	2.97	-	Ν
IH36203283/20	120	133	2.0	300.0	20	3.52	-	Ν

RUBBER WATER HOSE FUCINO W.P. bar	-Parker
 D4	Catalogue 4401/UK



-30 °C (-22 °F) to +80 °C (+176 °F)

Tube:

Cover:

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34 hymatik

Bold printed part numbers are stock products.

Part Number			Max. Working Pressure			B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30116062/100	8	15	1.0	150.0	10	0.19	50	Ν
IH30116063/100	10	17	1.0	150.0	10	0.22	60	Ν
IH30112103/100	12	19	1.0	150.0	10	0.26	70	Ν
IH30112139/100	15	21	1.0	150.0	10	0.25	90	Y
IH30112136/50	18	26	1.0	150.0	10	0.42	110	Ν
IH30112138/50	20	30	1.0	150.0	10	0.59	120	Y
IH30112134/50	25	35	1.0	150.0	10	0.71	150	Y

RUBBER HOSE PRESCORD W.P. bar	-Parker
 D5	Catalogue 4401/UK





Water

IDRO 10

Suitable for discharge of water and nonaggressive liquids, for agricultural uses, also in industrial facilities and on building sites.

Hose Construction

Tube:	Black, smooth SBR nitrosamine free
	rubber compound
Reinforcement:	Synthetic textile fabrics

Cover: Black: abrasion, ageing and weather-resistant SBR nitrosamine free rubber compound

Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



According to RMA steel mandrel Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			Max. Working Pressure		Weight	min. Bend Radius	in Stock	
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36203000/40	25	34	1.0	150.0	10	0.63	250	Ν
IH36203002/40	30	41	1.0	150.0	10	0.92	300	Ν
IH36203003/40	32	44	1.0	150.0	10	1.07	320	Y
IH36203004/40	35	48	1.0	150.0	10	1.26	350	Ν
IH36203005/40	38	52	1.0	150.0	10	1.46	380	Ν
IH36203006/40	40	54	1.0	150.0	10	1.52	400	Ν
IH36203008/40	45	61	1.0	150.0	10	2.00	450	Ν
IH36203010/40	50	68	1.0	150.0	10	2.49	500	Ν
IH36203011/40	60	82	1.0	150.0	10	3.63	600	Y
IH36203103/20	75	91	1.0	150.0	10	2.95	750	Ν

RUBBER WATER HOSE IDRO 10 bar	-Parker
 D6	Catalogue 4401/UK



D – Water

Water

BEVERA 10

Suction and delivery of water and non-aggressive liquids. It is recommended for loading and discharge of storage tanks, tankers, for irrigation and for all applications where a flexible and easy to handle hose is required.

Hose Construction

Tube:	Black, smooth SBR nitrosamine free
	rubber compound
Reinforcement:	Synthetic textile fabrics and
	embedded steel wire helix
Cover:	Black, abrasion, ageing and
	weather-resistant SBR nitrosamine
	free rubber compound

Temperature Range

-30 °C (-22° F) to +80 °C (+176 °F)



- Resistant to twisting
- Nitrosamine free
- Vacuum 0.8 bar (600 mm Hg)
- Suitable for air up to 70 °C
- Design Factor 3:1

Tolerances

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Fitting Series 48 (up to I.D. 50 mm) IF (from I.D. 60 mm)

Part Number			Ma: MPa	x. Working		Weight	🎽 🖓 Radius	in Stock
	I.D. (mm)	O.D. (mm)		psi	bar	kg/m	mm	
IH36214045/40	19	29	1.0	150.0	10	0.67	110	Y
IH36214050/40	25	35	1.0	150.0	10	0.83	150	Y
IH36214051/40	30	40	1.0	150.0	10	0.95	180	Ν
IH36214052/40	32	42	1.0	150.0	10	1.01	190	Y
IH36214054/40	38	48	1.0	150.0	10	1.16	230	Y
IH36214055/40	40	50	1.0	150.0	10	1.21	240	Y
IH36214058/40	50	60	1.0	150.0	10	1.50	300	Y
IH36214060/40	60	71	1.0	150.0	10	1.94	360	Y
IH36214063/20	70	81.5	1.0	150.0	10	2.59	420	Ν
IH36214064/20	75	86.5	1.0	150.0	10	2.75	450	Y
IH36214066/20	80	92.5	1.0	150.0	10	3.02	480	Y
IH36214067/20	90	103.5	1.0	150.0	10	3.66	540	Ν
IH36214068/20	100	114	1.0	150.0	10	3.98	600	Y
IH36214070/20	110	124	1.0	150.0	10	4.34	660	Ν
IH36214071/20	120	134	1.0	150.0	10	4.73	720	Ν
IH36211010/20	125	140	1.0	150.0	10	5.66	750	Y
IH36211050/10	150	170	1.0	150.0	10	7.73	900	Ν
IH36211032/6	203	225	1.0	150.0	10	15.00	1210	Ν

Bold printed part numbers are stock products.

RUBBER WATER HOSE BEVERA W.P. bar	-Parker
 D7	Catalogue 4401/UK



MULTIREX

For suction and delivery of water for irrigation, liquid fertilisers and general industrial uses.

Hose Construction Flexible hose having an off-white, rigid PVC spiral embedded in a transparent green, flexible PVC wall

Temperature Range

-10 °C (+14 °F) to +60 °C (+140 °F)



- Multipurpose hose
- Very flexible hose
- Vacuum 0.7 bar for ID up to 50 mm then 0.6 bar
- Design Factor 3:1

Tolerances Refer to Technical Handbook on page TH34

Part Number	\bigcirc	\bigcirc	🕥 Max	x. Working	Pressure	Weight	min. Bend	in Stock
Fait Nulliber	I.D. (mm)	∽⊞∽ Wall (mm)	MPa	psi	bar	kg/m	イビ Radius mm	OLOCK
IH35602019/50	19	3.0	0.7	101.5	7	0.20	60	Ν
IH35600025/50	25	3.0	0.7	101.5	7	0.29	90	Y
IH35600030/50	30	3.1	0.6	87.0	6	0.35	90	Ν
IH35602032/50	32	3.2	0.6	87.0	6	0.37	95	Y
IH35600035/50	35	3.5	0.6	87.0	6	0.43	105	Ν
IH35602038/50	38	3.6	0.6	87.0	6	0.49	115	Y
IH35600040/50	40	3.7	0.6	87.0	6	0.51	120	Ν
IH35600045/50	45	4.0	0.5	72.5	5	0.57	135	Ν
IH35600050/50	50	4.0	0.5	72.5	5	0.73	150	Y
IH35600060/50	60	4.2	0.5	72.5	5	0.96	180	Y
IH35600070/50	70	4.5	0.4	58.0	4	1.23	315	Ν
IH35602075/50	75	4.6	0.4	58.0	4	1.47	340	Y
IH35600080/50	80	4.7	0.4	58.0	4	1.57	360	Y
IH35602090/25	90	4.8	0.4	58.0	4	1.92	415	Ν
IH35600100/25	100	5.0	0.4	58.0	4	2.11	450	Y
IH35602110/25	110	5.4	0.4	58.0	4	2.56	500	Ν
IH35600120/25	120	5.8	0.4	58.0	4	2.69	540	Ν
IH35600150/25	150	6.5	0.3	43.5	3	3.85	675	Ν

Bold printed part numbers are stock products.

MULTIREX DIAM I.D. mm PARKER	
 D8	Catalogue 4401/UK



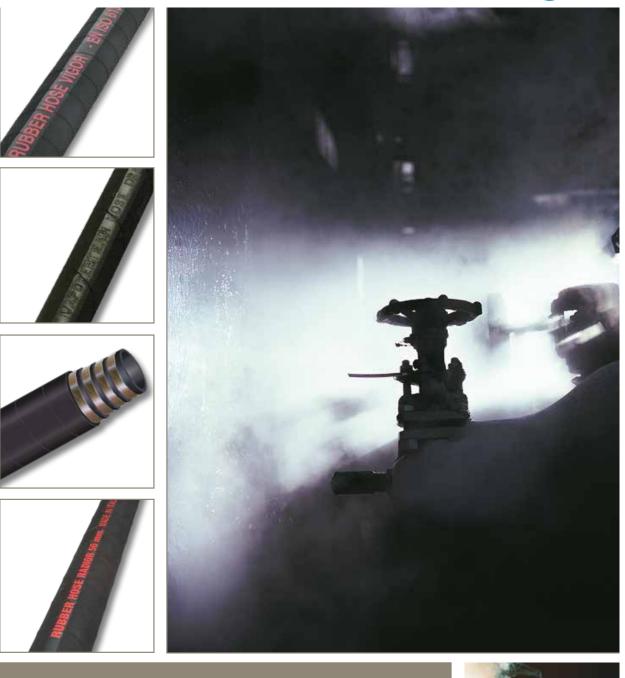
Notes	

Catalogue 44



Notes
alogue 4401/UK





Hot Water & Steam





ENGINEERING YOUR SUCCESS.



E – Hot Water & Steam

Hose	ID Range (mm)	Temp. Range (°C)	Application
RADIOR 3	10 - 100	-40 / +100	cooling line system
RADIOR K 1003	12 - 65	-40 / +100	cooling line system
THERMOPRESS 10	12 - 60	-40 / +100	cooling line and hot water
VIGOR 2 EN ISO 6134 Type 2/A	13 - 51	-40 / +210	steam industrial application
VIGOR 2 NR EN ISO 6134 Type 2/A	13 - 51	-40 / +210	steam industrial application

WARNING!

Steam hoses gradually decrease in performance during service life. Consequently, they need to be regularly inspected by trained personnel wearing adequate protective overalls, including eye protection. Cuts and gouges in the hose cover showing the textile reinforcement. Steam leaks.Permanent deformation of hose. Reduction of steam flow. WHEN ONE OF THESE ABNORMALITIES OCCURS, THE HOSE SHOULD BE REMOVED FROM SERVICE AND INSPECTED. If a failure occurs close to the couplings, the damaged hose can be cut, reconnected and used as before.

Use only couplings with safety clamps. Follow the coupling manufacturer's instructions for coupling procedures. Check coupling tightness each time before use. Drain after use. When not in use, store the hose on a flat surface (shelves) and never hang from a hook.

E2



Hot Water & Steam

Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page	l
EPDM	textile	EPDM	3	3			E4-E5	
NBR	textile	CR	5	3			E6	
EPDM	textile	EPDM	10	4			E7	6
EPDM	textile	EPDM	18	10		ENISO6134Type2/A	E8	
EPDM	textile	EPDM	18	10		ENISO6134Type2/A	E8	

-Parker

E3



RADIOR 3 (COIL)

Designed for cooling systems of automotive engines and stationary engines.

Hose Construction

Tube:	Black, smooth, heat resistant EPDM
	nitrosamine free rubber compound
Reinforcement:	Synthetic textile yarn fabric
Cover:	Black, smooth, heat, ageing
	and weather-resistant EPDM
	nitrosamine free rubber compound

Temperature Range

-40 °C (-40 °F) to peaks of +100 °C (+212 °F)



I.D. ≤ 22 mm according to UNI EN ISO 1307 I.D. > 22 mm according to RMA steel mandrel *Refer to Technical Handbook on page TH34*

Part Number			S Max	k. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36830095/40	10	16	0.3	43.5	3	0.16	-	Y
IH36830096/40	12	18	0.3	43.5	3	0.19	-	Y
IH36830097/40	15	21	0.3	43.5	3	0.23	-	Y
IH36830101/40	18	24.5	0.3	43.5	3	0.29	-	Y
IH36830102/40	20	26.5	0.3	43.5	3	0.32	-	Y
IH36830103/40	22	28.5	0.3	43.5	3	0.34	-	Y
IH36830104/40	25	32	0.3	43.5	3	0.39	-	Y
IH36830105/40	28	36	0.3	43.5	3	0.50	-	Y
IH36830106/40	30	38	0.3	43.5	3	0.53	-	Y
IH36830107/40	32	40	0.3	43.5	3	0.55	-	Y
IH36830108/40	35	43	0.3	43.5	3	0.60	-	Y
IH36830109/40	38	47	0.3	43.5	3	0.73	-	Y
IH36830110/40	40	49	0.3	43.5	3	0.77	-	Y
IH36830111/40	42	51	0.3	43.5	3	0.80	-	Y
IH36830112/40	45	54	0.3	43.5	3	0.85	-	Ν
IH36831023/40	48	57	0.3	43.5	3	0.91	-	Ν
IH36830113/40	50	60	0.3	43.5	3	1.07	-	Y
IH36830114/40	55	65	0.3	43.5	3	1.17	-	Y
IH36830115/40	60	70	0.3	43.5	3	1.26	-	Y
IH36830116/20	65	76	0.3	43.5	3	1.54	-	Ν
IH36830117/20	70	81	0.3	43.5	3	1.65	-	Y
IH36831022/20	75	86	0.3	43.5	3	1.75	-	Y
IH36830118/20	80	92	0.3	43.5	3	2.05	-	Y
IH36830119/20	90	102	0.3	43.5	3	2.29	-	Y
IH36830120/20	100	113	0.3	43.5	3	2.63	-	Y

Bold printed part numbers are stock products.

RUBBER HOSE RADIOR DIAM. I.D. mm	-Parker
 E4	Catalogue 4401/UK

Hot Water & Steam

hymatik

RADIOR 3 (CUT LENGTH)

Designed for cooling systems of automotive engines and stationary engines.

Hose Construction

Tube:	Black, smooth, heat resistant EPDM nitrosamine free rubber compound
Deinforcoment	•
	Synthetic textile yarn fabric
Cover:	Black, smooth, heat, ageing
	and weather-resistant EPDM
	nitrosamine free rubber compound

Temperature Range

-40 °C (-40 °F) to peaks of +100 °C (+212 °F)



Tolerances

I.D. \leq 22 mm according to UNI EN ISO 1307 I.D. > 22 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S Max	x. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36830023/1	15	21	0.3	43.5	3	0.23	-	Y
IH36830001/1	18	24.5	0.3	43.5	3	0.29	-	Y
IH36830002/1	20	26.5	0.3	43.5	3	0.32	-	Y
IH36830003/1	22	28.5	0.3	43.5	3	0.34	-	Y
IH36830004/1	25	32	0.3	43.5	3	0.39	-	Ν
IH36830005/1	28	36	0.3	43.5	3	0.50	-	Y
IH36830006/1	30	38	0.3	43.5	3	0.53	-	Ν
IH36830007/1	32	40	0.3	43.5	3	0.55	-	Ν
IH36830008/1	35	43	0.3	43.5	3	0.60	-	Y
IH36830009/1	38	47	0.3	43.5	3	0.73	-	Y
IH36830010/1	40	49	0.3	43.5	3	0.77	-	Y
IH36830011/1	42	51	0.3	43.5	3	0.80	-	Ν
IH36830012/1	45	54	0.3	43.5	3	0.85	-	Ν
IH36831030/1	48	57	0.3	43.5	3	0.91	-	Y
IH36830013/1	50	60	0.3	43.5	3	1.07	-	Y
IH36830014/1	55	65	0.3	43.5	3	1.17	-	Ν
IH36830015/1	60	70	0.3	43.5	3	1.26	-	Y
IH36830016/1	65	76	0.3	43.5	3	1.54	-	Ν
IH36830017/1	70	81	0.3	43.5	3	1.65	-	Ν
IH36831031/1	75	86	0.3	43.5	3	1.75	-	Y
IH36830018/1	80	92	0.3	43.5	3	2.05	-	Y
IH36830019/1	90	102	0.3	43.5	3	2.29	-	Y
IH36830020/1	100	113	0.3	43.5	3	2.63	-	Ν

Bold printed part numbers are stock products.

RUBBER HOSE RADIOR DIAM. I.D. mm	-Parker
 E5	Catalogue 4401/U



Hot Water & Steam

RADIOR K 1003

Designed for heating and cooling systems, resistant to ASTM I/II/III oil up to +100 °C (+212 °F) with peaks up to +120 °C (+248 °F) and diesel fuel up to +50 °C (+122 °F).

Hose Construction

Tube:	Black, smooth, heat resistant
	NBR rubber compound
Reinforcement:	Synthetic textile fabrics yarns
Cover:	Black, smooth, wrapped finish,
	heat, ageing and weather-resistant
	CR rubber compound

Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



- Superior Chloroprene cover compound for oil and fuel resistance paraffine
- Also suitable for B100
- Light and flexible hose
- Design Factor 3:1

Tolerances

I.D. \leq 22 mm according to UNI EN ISO 1307 I.D. > 22 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			S Max	c. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30831300/40	12	19	0.5	72.5	5	0.24	-	Y
IH30831302/40	15	22	0.5	72.5	5	0.28	-	Y
IH30831303/40	18	25	0.5	72.5	5	0.33	-	Y
IH30831305/40	22	29	0.5	72.5	5	0.39	-	Y
IH36831300/40	25	32	0.5	72.5	5	0.41	-	Y
IH36831301/40	28	35	0.5	72.5	5	0.45	-	Y
IH36831303/40	32	39	0.5	72.5	5	0.51	-	Y
IH36831305/40	38	45	0.5	72.5	5	0.59	-	Ν
IH36831308/20	45	56	0.5	72.5	5	1.11	-	Ν
IH36831309/20	50	61	0.5	72.5	5	1.22	-	Ν
IH36831311/20	60	71	0.5	72.5	5	1.43	-	Ν
IH36831312/20	65	76	0.5	72.5	5	1.54	-	Ν

RUBBER HOSE RADIOR OEL P50 II	-Parker
 E6	Catalogue 4401/UK

Hot Water & Steam

hymatik

THERMOPRESS 10

Suitable for delivery of hot water, non-aggressive hot liquids and steam to a maximum temperature of +120 °C (+248 °F). To connect boilers to air conditioning units and for hot water cleaning systems.

Hose Construction

Tube:	Black, smooth, heat resistant, EPDM nitrosamine free rubber
	compound
Reinforcement:	Synthetic textile fabrics or yarns
Cover:	Black, smooth, heat, ageing
	and weather-resistant EPDM
	nitrosamine free rubber compound

Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F), with peaks +120 °C (+248 °F)



Design Factor 4:1



E – Hot Water & Steam

Tolerances

I.D. \leq 20 mm according to UNI EN ISO 1307 I.D. > 20 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.								
Part Number			S Max	x. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36800002/100	12	22.5	1.0	150.0	10	0.38	120	Ν
IH36800003/80	15	25.5	1.0	150.0	10	0.44	150	Y
IH36800004/80	18	28.5	1.0	150.0	10	0.51	180	Y
IH36800005/80	20	30.5	1.0	150.0	10	0.56	200	Y
IH36800006/40	25	35	1.0	150.0	10	0.61	250	Ν
IH36800007/40	30	41	1.0	150.0	10	0.79	300	Ν
IH36800009/40	40	54	1.0	150.0	10	1.34	400	Ν
IH36800011/40	50	68	1.0	150.0	10	2.12	500	Ν
IH36800012/40	60	82	1.0	150.0	10	3.10	600	Ν





VIGOR 2 EN ISO 6134 TYPE 2/A

According to EN ISO 6134 type 2/A

Designed for high pressure saturated steam (max 18 bar at +210 °C = 261 psi at +410 °F). Suitable for loading saturated and superheated steam in cleaning and sterilization applications, petrochemical industry and general steam service applications

Hose Construction

Tube:	Black, smooth, EPDM
	rubber compound. Heat and
	saturated steam resistant
Reinforcement:	High tensile steel cords
Cover:	Black, smooth, EPDM rubber com-
	pound. Heat, abrasion, ozone and
	weather resistant.
	The cover is pinpricked to prevent
	blistering and bubbling.



- Wide range temperature
- Pin-pricked cover
- Two cover color lines: black and red
- Working pressure for hot water 45 bar with a Design Factor of 4:1
- Design Factor 10:1

Tolerances

According to EN ISO 6134 Refer to Technical Handbook on page TH34

Temperature Range

-40 °C (-40 °F) to +210 °C (+410 °F)

Bold printed part	numbers ar	e stock pro	ducts.					
Part Number			S Max	k. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
VIGOR 2 EN ISO 61	34 (black)							
IH36801700/40	13	25	1.8	261.0	18	0.50	130	Y
IH36801701/40	16	30	1.8	261.0	18	0.70	160	Ν
IH36801702/40	19	33	1.8	261.0	18	0.77	190	Y
IH36801703/40	25	40	1.8	261.0	18	1.06	250	Y
IH36801704/40	32	48	1.8	261.0	18	1.39	320	Y
IH36801705/40	38	54	1.8	261.0	18	1.60	380	Ν
IH36801706/40	51	69	1.8	261.0	18	2.56	500	Ν
VIGOR 2 EN ISO 61	34 (red)							
IH36801720/40	13	25	1.8	261.0	18	0.51	130	Ν
IH36801721/40	16	29	1.8	261.0	18	0.70	160	Ν
IH36801722/40	19	33	1.8	261.0	18	0.79	190	Ν
IH36801723/40	25	40	1.8	261.0	18	1.06	250	Ν
IH36801724/40	32	48	1.8	261.0	18	1.41	320	Ν
IH36801725/40	38	54	1.8	261.0	18	1.62	380	Ν
IH36801726/40	51	69	1.8	261.0	18	2.59	500	Ν

Hose layline example

WARNING! see page E2

UBBER HOSE VIGOR - EN ISO 6134:2005 - 2A - steam - 18 bar – 210 °C - I.D. mm - Ω – MADE IN ITALY – Parke



Notes	

Catalogue 44



Notes
alogue 4401/UK





Acid & Chemicals



-Parker

ENGINEERING YOUR SUCCESS.



F – Acid & Chemicals

Hose	ID Range (mm)	Temp. Range (°C)	Application
POLIAX D EN 12115	19 - 100	-35 / +100	chemical resistance table
POLIAX D SM EN 12115	19 - 100	-35 / +100	chemical resistance table
POLIAX UPE CON SM EN 12115	19 - 100	-20 / +100	chemical resistance table
POLIAX UPE CON SM EN 12115 OND	19 - 100	-20 / +100	chemical resistance table
POLIAX F EN 12115	13 - 75	-40 / +150	chemical resistance table
POLIAX PHARMA	13 - 51	-60 / +200	chemical resistance table

WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.



F2



Acid & Chemicals

Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page
EPM	textile + copper wires	EPDM	16	4		EN 12115	F4
EPM	textile + copper wires	EPDM	16	4	yes	EN 12115	F5
UHMWPE	textile + copper wires	EPDM	16	4	yes	EN 12115	F6
UHMWPE	textile + copper wires	EPDM	16	4	yes	EN12115	F7
PTFE	textile + copper wires	EPDM	16	4	yes	EN 12115	F8
 SILICONE	textile + copper wires	SILICONE	6/15	3	yes		F9



POLIAX D EN 12115

According to EN 12115

Suitable for delivery of highly aggressive chemicals, according to EN 12115,

Hose Construction

Tube:	Black, smooth antistatic EPM ni-
	trosamine free rubber compound
Reinforcement:	Synthetic textile fabrics and built-in
	copper wires to facilitate the electri-
	cal connection between hose and
	end couplings
Cover:	Black, antistatic (R < 1 M Ω /m),
	EPDM rubber compound, heat,
	abrasion, ageing and weather
	resistant

Temperature Range

-35 °C (-31 °F) to +100 °C (+212 °F) For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.

Bold printed part numbers are stock products.



- In-plant and storage tank transfer
- Nitrosamine free
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Design Factor 4:1

Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Part Number			S Max	k. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36810131/40	25	37	1.6	232.0	16	0.71	225	Y
IH36810132/40	32	44	1.6	232.0	16	0.86	262.5	Y
IH36810133/40	38	51	1.6	232.0	16	1.11	337.5	Y
IH36810134/40	50	66	1.6	232.0	16	1.72	412.5	Y
IH36810135/40	63.5	79	1.6	232.0	16	2.10	450	Ν
IH36810136/40	75	91	1.6	232.0	16	2.56	525	Ν
IH36810137/40	100	116	1.6	232.0	16	3.38	675	Ν

WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.

Hose layline example

POLIAX D EN 12115:2011 - EPDM - D - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year - Parker MADE IN ITALY

-Parker

- Acid & Chemicals

hvmatik

POLIAX D SM EN 12115

According to EN 12115

Suitable for suction and delivery of highly aggressive chemicals, according to EN 12115.

Hose Construction

Tube:	Black, smooth antistatic EPM
	nitrosamine free rubber compound
Reinforcement:	Synthetic textile fabrics, embedded
	steel wire helix and built-in cop-
	per wires to facilitate the electrical
	connection between hose and end
	couplings
Cover:	Black, antistatic (R < 1 M Ω /m),
	EPDM rubber compound, heat,
	abrasion, ageing and weather
	resistant

Temperature Range

-35 °C (-31 °F) to +100 °C (+212 °F) For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam - a temperature of +130 °C (+266 °F) for short periods.

Bold printed part numbers are stock products.



- In-plant and storage tank transfer
- Nitrosamine free
- Flexibility and kink resistance
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum 0.9 bar up to 63.5 mm then 0.8 bar
- Design Factor 4:1

Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Fitting Series 48 (up to I.D. 50 mm) IF (from I.D. 63.5 mm)

Part Number			S Max	k. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36810111/40	19	31	1.6	232.0	16	0.70	125	Y
IH36810112/40	25	37	1.6	232.0	16	0.92	150	Y
IH36810113/40	32	44	1.6	232.0	16	1.09	175	Y
IH36810114/40	38	51	1.6	232.0	16	1.35	225	Y
IH36810115/40	50	66	1.6	232.0	16	1.84	275	Y
IH36810116/40	63.5	79	1.6	232.0	16	2.54	300	Y
IH36810117/40	75	91	1.6	232.0	16	3.12	350	Y
IH36810118/40	100	116	1.6	232.0	16	4.41	450	Ν

WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.

Hose layline example

POLIAX D EN 12115:2011 - EPDM - SD - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year — Darker MADE IN ITALY



POLIAX UPE CON SM EN 12115

According to EN 12115

POLIAX UPE CON SM EN 12115 is an heavy duty hose for suction and delivery of a wide range of highly aggressive chemicals such as most industrial acids, alkalis, oils, fuels and solvents. It can be used as a flexible connection in paint plants.

Refer to the Chemical Resistant Chart to determine compatibility with specific chemicals. For severe or special applications – for tighter bending radius – or if in doubt, please ask our Technical Assistance.

Hose Construction

Tube:	Lucent, black, smooth, conductive, ultra high molecular weight poly- ethylene (UHMWPE), suitable for foodstuff contact according to FDA, EEC Directive, Italian Decrees
Reinforcement:	Synthetic textile fabrics, embedded steel wire helix and built-in copper wires to allow the electrical connec- tion between hose and couplings
Cover:	Black, antistatic ($R < 1 M\Omega/m$), EPDM rubber compound, heat, abrasion, ageing and weather resistant

Bold printed part numbers are stock products.



- High flexibility and kink resistance
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum: 0.9 bar up to dn 63.5, 0.8 bar for larger sizes
- Design Factor 4:1

Temperature Range

-20 °C (+5 °F) to +100 °C (+212 °F) For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.

Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Fitting Series

48 (up to I.D. 50 mm) IF (from I.D. 63.5 mm)

Part Number			Max. Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36811529/40	19	31	1.6	232.0	16	0.71	187.5	Y
IH36811530/40	25	37	1.6	232.0	16	0.87	225.0	Y
IH36811531/40	32	44	1.6	232.0	16	1.07	262.5	Y
IH36811532/40	38	51	1.6	232.0	16	1.35	337.5	Y
IH36811534/40	50	66	1.6	232.0	16	2.29	412.5	Y
IH36811535/40	63.5	79	1.6	232.0	16	2.51	450.0	Ν
IH36811536/40	75	91	1.6	232.0	16	3.07	525.0	Y
IH36811538/20	100	116	1.6	232.0	16	4.43	675.0	Ν

WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.

Hose layline example

POLIAX EN 12115:2011 - UPE - SD - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year MADE IN ITALY

-Parker

Acid & Chemicals

POLIAX UPE CON SM OND EN 12115

According to EN 12115

POLIAX UPE CON SM EN 12115 OND is a very flexible hose suitable for suction and delivery of a wide range of highly aggressive chemicals such as most industrial acids, alkalis, oils, fuels and solvents. It can also be used as a flexible connections in paint plants.

Refer to the Chemical Resistant Chart to determine compatibility with specific chemicals. For severe or special applications – for tighter bending radius – or if in doubt, please ask our Technical Assistance.

Hose Construction

Tube:Lucent, black, smooth, conductive,
ultra high molecular weight poly-
ethylene (UHMWPE), suitable for
foodstuff contact according to FDA,
EEC Directive, Italian DecreesReinforcement:Synthetic textile fabrics, embedded
steel wire helix and built-in copper
wires to allow the electrical connec-
tion between hose and couplingsCover:Black, corrugated, antistatic
(R < 1 MΩ/m), EPDM rubber com-
pound, heat, abrasion, ageing and
weather resistant

Bold printed part numbers are stock products.



- Extreme flexibility, superior kink resistance, minimal force to bend
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum: 0.9 bar up to dn 63.5, for larger sizes 0.8 bar
- Design Factor 4:1

Temperature Range

-20 °C (+5 °F) to +100 °C (+212 °F) For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.

Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Part Number			Max. Working Pressure			B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36811570/40	19	31	1.6	232.0	16	0.71	38	Ν
IH36811571/40	25	37	1.6	232.0	16	0.87	50	Y
IH36811572/40	32	44	1.6	232.0	16	1.07	64	Y
IH36811573/40	38	51	1.6	232.0	16	1.35	76	Y
IH36811574/40	50	66	1.6	232.0	16	2.29	100	Y
IH36811575/40	63.5	79	1.6	232.0	16	2.51	127	Ν
IH36811576/40	75	91	1.6	232.0	16	3.07	150	Y
IH36811577/20	100	116	1.6	232.0	16	4.43	200	Ν

WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.

Hose layline example

POLIAX EN 12115:2011 - UPE - SD - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year MADE IN ITALY

-Parker

Catalogue 4401/UK

- Acid & Chemicals

hymatik



POLIAX F EN 12115

According to EN 12115

POLIAX F EN 12115 is manufactured with high quality elastomers, with excellent chemical and mechanical properties, it results suitable for suction and delivery of a wide range of highly aggressive chemicals and solvents. Hose resistant to high temperature and designed for heavy chemical, foodstuff, pharmaceutical and cosmetic industry. Full conductive hose type Ω/T according to EN 12115, R<1M Ω and R<1G Ω through the wall. Suitable also for ATEX area.

Not to be used with chlorine tri-fluoride, chlorine and fluorine gas, oxygen di-fluoride, phosgene and molten alkalis (e.g., sodium).

Hose Construction

- **Tube:** Black, smooth, phthalates free PTFE (polytetrafluoroethylene). Superior resistance to high temperature, mechanical stress and to oxidation.
- **Reinforcement:** High temperature resistant plies, galvanized helix wire and copper wires to discharge electricity.
- **Cover:** Black, smooth, conducting (R < 1 M Ω /m) EPDM rubber compound, ageing, ozone and abrasion resistant.



- High flexibility and kink resistance
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas zone 0, 1 and 2
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Meets USP XXXII class VI requirements
- Vacuum: 0.9 bar
- Design Factor 4:1

Temperature Range

-40 °C (-40 °F) to +150 °C (+302 °F) For aggressive chemical and solvents intended to be used at high temperature please contact out Technical Assistance. For cleaning & sterilization refer to "Guidelines to the Use and Cleaning of Food and Pharma rubber hoses".

Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Part Number			Max. Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36811541/40	13	25	1.6	232	16	0.54	90	Ν
IH36811542/40	19	31	1.6	232	16	0.70	130	Ν
IH36811543/40	25	37	1.6	232	16	0.86	170	Ν
IH36811544/40	32	44	1.6	232	16	1.18	215	Ν
IH36811545/40	38	51	1.6	232	16	1.43	255	Ν
IH36811546/40	50	66	1.6	232	16	2.08	330	Ν
IH36811547/40	63.5	79.5	1.6	232	16	2.96	430	Ν
IH36811548/40	75	91	1.6	232	16	3.43	510	Ν

WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.

Hose layline example

POLIAX F EN 12115:2011 - PTFE - SD - LD, - WP 18 bar - O/T - TRbF 131/T2 - Quarten/Year - Darkar sca POLIAX F EN 12115:2011 - PTFE - SD - LD, - WP 18 bar - O/T - TRbF 131/T2 - Quarten/Year - Darkar sca

Acid & Chemicals

hvmatik

POLIAX PHARMA

Flexible hose suitable for suction and delivery of pharmaceutical and cosmetic products and also suitable for food transfer. Not intended for use as an implant material. This silicone hose shows a Platinum-catalyzed cure system. Not suitable for blood or human fluids.

Hose Construction

Tube:	Translucent, smooth, phthalates
	free, SILICONE rubber compound.
Reinforcement:	High temperature resistant plies and-
	stainless steel wire helix
Cover:	Translucent, smooth, SILICONE rubber
	compound, heat, ageing, ozone and
	abrasion resistant.

Temperature Range

-60 °C (-76 °F) to +200 °C (+392 °F) For aggressive chemicals and solvents intended to be used at high temperature please contact out Technical Assistance. For cleaning & sterilization refer to "Guidelines to the Use and Cleaning of Food and Pharma rubber hoses"

Tolerances

According to UNI EN ISO 1307

High Flexibility and kink resistance

- Meets European Pharmacopoeia 3.1.9 Ed. VII 2011
- 3A Sanitary Standard Class II
- Japan Ministry of Health and Welfare Notice No.370,1959, No.201,2006 and revision 2012
- USP XXXII class VI requirements
- ISO 10993 Sections5,10,11:2009
- FDA CFR 21 PART 177.2600
- DM 21/03/1973
- BfR Reccomandation XV & XXI Cat. 2
- European Reglement 1935/2004/CE
- Tested in compliance with 907/2006/CE (REACH)
- Vacuum: 0.9 bar
- Design Factor 3:1

Part Number			Max. Working Pressure			B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36811580/40	13	24	1.5	225	15	0.46	60	Ν
IH36811581/40	16	27	1.4	210	14	0.53	70	Ν
IH36811582/40	19	30	1.3	195	13	0.6	80	Ν
IH36811583/40	25	36	1.0	150	10	0.73	100	Ν
IH36811584/40	32	43	0.8	120	8	0.89	130	Ν
IH36811585/40	38	51	0.7	105	7	1.21	155	Ν
IH36811586/40	51	64	0.6	90	6	1.56	210	Ν

WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.

Hose layline example

->OLIAX ->HARMA ______



Catalogue 4401/UK

F – Acid & Chemicals



Notes
alogue 4401/UK





Material Handling





ENGINEERING YOUR SUCCESS.



G – Material Handling

Hose	ID Range (mm)	Temp. Range (°C)	Application
LIBECCIO EN ISO 3861	19 - 100	-30 / +70	wet and dry sand and cement
INTONACATRICI 40	25 - 65	-30 / +70	wet and dry sand and cement
BETON 80	51 - 125	-40 / +70	high pressure concrete pumping
CERGOM	25 - 200	-30 / +70	high abrasive materials
ASPIREX	20 - 250	-15 / +60	suction equipment





Material Handling

Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page	
BR/NR	textile	SBR/NBR	10	4		EN ISO 3861	G4	ō
BR/NR	textile	SBR	40	3			G5	dling
NR/SBR	steel wire	NR/SBR	80	2.5			G6	Hand
CERAMIC	textile + copper wires	SBR/NBR	6	3	yes		G7	erial
PVC	PVC wire	PVC	-	-	yes		G8	Mater
								с С

G3



LIBECCIO EN ISO 3861

According to EN ISO 3861

Suitable for conveying of wet and dry sand and grit blasting materials.

Hose Construction

Tube:	Smooth, black, antistatic, abrasion resistant BR/NR rubber compound. Abrasion according to ISO 4649: max. 60 - 70 mm ³
Reinforcement: Cover:	Synthetic textile fabrics Black, smooth, antistatic, weather and abrasion resistant SBR/NBR compound. The cover is pinpricked to prevent blistering and bubbling, max. resistance on finished hose: $2,0 \text{ M}\Omega/\text{m}$



According to RMA steel mandrel Refer to Technical Handbook on page TH34

Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)

Part Number	I.D. (mm)	O.D. (mm)	Max MPa	k. Working	Pressure bar	Weight kg/m	min. Bend Radius mm	in Stock
IH36820300/40	19	33	1.0	150.0	10	0.69	190	V
								1 M
IH36820200/40	25	40	1.0	150.0	10	0.92	250	Y
IH36820201/40	30	45	1.0	150.0	10	1.05	300	Y
IH36820202/40	32	48	1.0	150.0	10	1.37	320	Y
IH36820303/40	38	55	1.0	150.0	10	1.46	380	Ν
IH36820305/40	42	60	1.0	150.0	10	1.70	420	Ν
IH36820206/40	50	72	1.0	150.0	10	2.54	500	Y
IH36820207/40	60	82	1.0	150.0	10	2.95	600	Ν
IH36820209/20	80	105	1.0	150.0	10	4.32	800	Ν
IH36820210/20	90	115	1.0	150.0	10	4.84	900	Ν
IH36820211/20	100	125	1.0	150.0	10	5.30	1000	Ν

Bold printed part numbers are stock products.

RUBBER HOSE LIBECCIO EN ISO 3861 ID mm - WP 1,0 MPa - ABRASION 60/70 mm ³	Parker
 G4	Catalogue 4401/UK

hymatik

INTONACATRICI 40

Designed for delivery of plaster and abrasive materials such as mortar and wet cement from plastering machines or spray nozzles.

Hose Construction

Tube:	Black, abrasion resistant, antistatic
	smooth BR/NR rubber compound.
	Abrasion max. 60 - 70 mm ³
Reinforcement:	Synthetic textile fabrics
Cover:	Black, abrasion and weather-re-
	sistant, SBR rubber compound

Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)

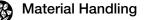


Bold printed part numbers are stock products.

Part Number			Max. Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36822030/40	25	38	4.0	600.0	40	0.89	300	Y
IH36822041/40	32	46	4.0	600.0	40	1.14	380	Ν
IH36822031/40	50	66	4.0	600.0	40	1.95	600	Ν
IH36822050/20	65	85	4.0	600.0	40	3.04	780	Ν

RUBBER HOSE INTONACATRICI W.P. bar	-Parker
 G5	Catalogue 4401/UK





BETON 80

Suitable for placement of concrete at casting locations by concrete pumps at the ends of the machine arms.

Hose Construction

Tube:	Smooth, black NR/SBR compound resistant to the abrasive action of the concrete abrasion DIN 53516:
Reinforcement: Cover:	max. 50±5 mm ³ Steel wire cord plies Black, smooth, weather and abra- sion resistant NR/SBR rubber compound

Temperature Range

-40 °C (-40 °F) to +70 °C (+158 °F)



- Flexibility and kink resistance also for easy cleaning
- Wet abrasive materials
- High abrasion resistant tube assures longer service life
- Dedicated fitting series
- Design Factor 2.5:1

Tolerances

On outside diameter

According to RMA steel mandrel On inside diameter

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			₩.	k. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36827051/0	51	75	8	1200	80	3.96	380	Y
IH36827052/0	65	89	8	1200	80	4.84	400	Y
IH36827053/0	76	100	8	1200	80	5.4	400	Ν
IH36827054/0	100	124	8	1200	80	7.04	550	Ν
IH36827055/0	125	150	8	1200	80	8.9	700	Ν

RUBBER HOSE BETON 80 -Parke	
 G6	Catalogue 4401/UK



hymatik

CERGOM

Parker Global Product

Suitable for pneumatic suction and delivery of dry cement, coal, CDR (fuel by-waste material), minerals, ceramic powder, glass recovery, fibreglass, and to load tankers and storage bins or silos. Applications in the industries: steelworks, cookery, thermoelectric power plant, cement works, mining industries, ceramic works, glassworks, insulating material manufactures etc. Supplied in customized lengths.

Hose Construction

Tube:	Ceramic hexagonal plates (sinter- ized Alumina Oxide) processed to match black BR/NR rubber com-
	pound, highly resistant to abrasion
Reinforcement:	1 . 0 ,
	steel wire helix and built-in copper
	wires to provide electrical continuity
	between both ends
Cover:	Black, antistatic (R < 2.0 M Ω /m),
	abrasion and weather-resistant,
	SBR/NBR rubber compound

Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)



- Parker International Patent PCT-EP2007-057488
- Outstanding resistance at the abrasion
- Unique construction provides service life many times longer than traditional rubber hoses
- Reduces operations, logistics and admin costs
- Customized assemblies with built-in tech
- Design Factor 3:1

Tolerances Length tolerance ±1%

Fittings

Swievel Flanges DIN 2817 PN 16 built in max length from id 42 to id 125: 20 mts max length other diameters: 10 mts

Part Number			S Ma	x. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36829020/0	25	49	1.0	145.0	10	2.59	375	Ν
IH36829021/0	32	56	1.0	145.0	10	3.07	480	Ν
IH36829022/0	38	62	1.0	145.0	10	3.48	570	Ν
IH36829023/0	42	66	1.0	145.0	10	3.75	630	Ν
IH36829024/0	48	72	1.0	145.0	10	4.17	720	Ν
IH36829025/0	50	74	1.0	145.0	10	4.31	750	Ν
IH36829026/0	60	86	1.0	145.0	10	5.27	900	Ν
IH36829027/0	63.5	90	1.0	145.0	10	5.54	953	Ν
IH36829028/0	70	100	1.0	145.0	10	6.00	1050	Ν
IH36829029/0	75	105	1.0	145.0	10	6.35	1125	Ν
IH36829030/0	80	110	1.0	145.0	10	6.93	1200	Ν
IH36829031/0	100	132	1.0	145.0	10	8.56	1500	Ν
IH36829032/0	114	147	1.0	145.0	10	13.24	1710	Ν
IH36829033/0	125	158	1.0	145.0	10	14.42	1875	Ν
IH36829034/0	150	188	1.0	145.0	10	19.42	2250	Ν
IH36829035/0	200	240	1.0	145.0	10	27.68	3045	Ν

RUBBER HOSE GERGOM —Parker	
 G7	Catalogue 4401/UK



Material Handling

ASPIREX

Suitable for suction of air, dust, fumes, saw-dust and wood-shavings. Also suitable for centralized suction equipment in wood, textile, china and welding equipment. It is also suitable for use on agricultural machinery.

Hose Construction

Flexible hose having a grey, rigid PVC spiral embedded in a metalized grey, flexible PVC wall. Externally corrugated, smooth inner surface. Self-extinguishing.

Temperature Range

-15 °C (+5 °F) to +60 °C (+140 °F)

- Self-extinguishing hose
- General purpose hose
- Not to be used under pressure
- Vacuum 0.75 bar for ID up to 50 mm then 0.40 bar

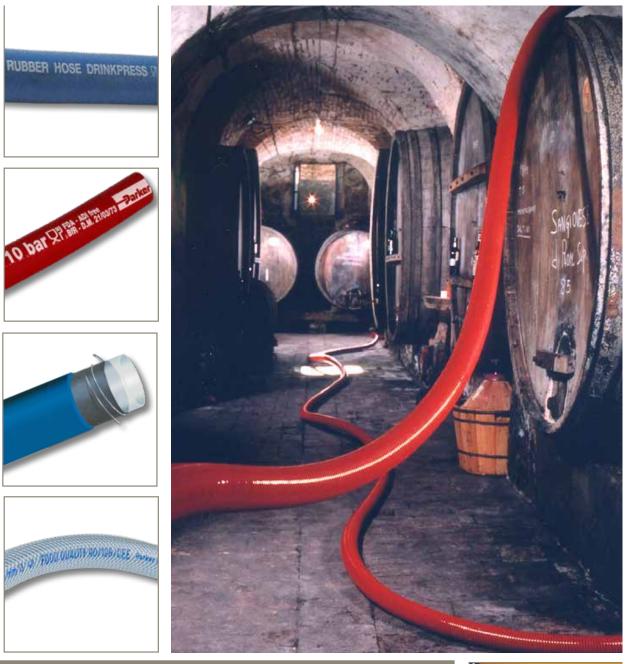
Tolerances Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			Max				min. Bend Radius	in Stock
	I.D. (mm)	Wall (mm)	MPa	psi	bar	kg/m	mm	
IH35560020/50	20	2.6	-	-	-	0.14	20	N
IH35560025/50	25	2.9	-	-	-	0.18	25	Ν
IH35562032/50	32	3.3	-	-	-	0.27	32	Ν
IH35560040/50	40	3.9	-	-	-	0.36	40	Y
IH35560050/50	50	4.2	-	-	-	0.52	50	Y
IH35560060/50	60	4.4	-	-	-	0.64	60	Y
IH35560070/50	70	4.8	-	-	-	0.76	70	Y
IH35560080/50	80	5.0	-	-	-	0.97	80	Y
IH35560100/30	100	5.3	-	-	-	1.27	100	Y
IH35560120/30	120	5.6	-	-	-	1.58	120	Ν
IH35560150/30	150	5.9	-	-	-	2.15	150	Ν
IH35562160/30	160	6.1	-	-	-	2.28	160	Ν
IH35560200/15	200	7.0	-	-	-	2.95	200	Ν
IH35560250/15	250	8.0	-	-	-	4.00	250	Ν

ASPIREX I.D. mm - SELF-EXTINGUISHING PARKER	
 G8	Catalogue 4401/UK





Beverage & Food



ENGINEERING YOUR SUCCESS.



H – Beverage & Food

Hose	ID Range (mm)	Temp. Range (°C)	Application
DRINKPRESS WB/L 10	10 - 25	-30 / +100	food & beverage, wash-down
GAMBRINUS UPE SM EN12115	19 - 100	-20 / +100	food & beverage
GAMBRINUS BLUE 10	19 - 102	-30 / +80	fatty food & beverage
GAMBRINUS BLUE SM 10	19 - 102	-30 / +80	fatty food & beverage
GAMBRINUS RED SM 10	19 - 102	-40 / +120	wine and soft drinks food & beverage
VINITRESS	6 - 40	-20 / +60	food & beverage
APERSPIR	12 - 150	-10 / +60	food & beverage
ENOREX	25 - 120	-25 / +60	wine and soft drinks food & beverage

Guidelines to the use and cleaning of food rubber hose

Refer to Technical Handbook on page TH13



Beverage & Food

hymatik

9

 Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page	
NBR	textile	NBR/PVC	10	4		FDA - EC	H4	
UHMWPE	textile + copper wires	EPDM	16	4	yes	**EN12115-FDA-DM	H5	Food
NBR	textile	NBR/PVC	10	3		* BfR - DM - FDA - EC	H6	യ് യ
NBR	textile	NBR/PVC	10	3	yes	* BfR - DM - FDA - EC	H7	erag
EPDM	textile	EPDM	10	3	yes	* BfR - DM - FDA - EC	H8	Beve
PVC	textile	PVC	20	3		EC 90/128 CLASS A-B-C	Н9	÷
PVC	steel wire	PVC	15	3	yes	EC 90/128 CLASS A-B-C	H10	
PVC	PVC wire		10	3	yes	EC 1935:2004 CLASS A-B-C	H11	

* BfR Class2 - DM 21/03/73 - FDA title21 - EC 1935/2004 ** EN 12115 - FDA title21 - DM 21/03/73 - DM 220 26/04/93



(T

DRINKPRESS WB/L 10

Designed for delivery of all foodstuffs containing vegetable fats and fluids as well as beverages such as wine, fruit juices and liqueurs. Also suitable for wash-down in food processing with hot water.

Hose Construction

Tube:	White, smooth, NBR food quality
	rubber compound
Reinforcement:	High tensile synthetic yarns
Cover:	Blue, smooth, abrasion, vegetable
	fats, ozone and weather resistant
	NBR/PVC rubber compound

Temperature Range

-30 °C (-22 °F) to +110 °C (+230 °)



- Multipurpose food grade hose
- According to FDA 21 EC 1935/2004
- Versatility of use, food transfer, wash-down applications
- Design Factor 3:1

Tolerances

According to UNI EN ISO 1307/97 Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number		O.D. (mm)	Ma: MPa	x. Working	Pressure bar	Weight kg/m	min. Bend Radius mm	in Stock
	I.D. ((1111))	0.0. (1111)	IVIFa	psi	Dai	кулп		
IH30240022/40	10	19	1	150	10	0.31	80	Ν
IH30240020/40	13	23	1	150	10	0.42	105	Y
IH30240025/40	16	26	1	150	10	0.49	130	Ν
IH30240030/40	19	30	1	150	10	0.71	150	Y
IH30240035/40	25	36	1	150	10	1.05	200	Ν

RUBBER HOSE DRINKPRESS	ST FDA	-Parker MADE IN ITALY	мсхх	
	H4			Catalogue 4401/UK

hvmatik

– Beverage & Food

Т

GAMBRINUS UPE SM EN 12115

According to EN 12115

Designed to handle all beverages such milk, mineral water, fruit juices, wine, liqueurs etc.., as well as animal or vegetable fats and oils. It is also suitable for sanitary materials. UHMWPE tube does not leach into and contaminate the product conveyed. Suitable for suction and delivery.

Hose Construction

Tube:	Smooth, white undercoat, ultra high molecular weight translucent polyethylene (UHMWPE), suitable
	for foodstuff contact
Reinforcement:	Synthetic textile fabrics with embed-
	ded steel wire helix and copper wire
	to allow electrical connection
	between hose and couplings
Cover:	Blue, abrasion and weather
	resistant EPDM rubber compound

Temperature Range

-20 °C (-4 °F) to +100 °C (+212 °F) sterilization at 130 °C for short periods

- According to EN 12115 -FDA title21 - DM 21/03/73 -DM 220 26/04/93
- Compatibility with all liquid foodstuffs & outstanding performance in one solution
- Design Factor 4:1
- Vacuum: 0.8 bar max

Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Part Number			Э м	ax. Working	g Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36242301/40	19	31	1.6	232.0	16	0.70	190	N
IH36242302/40	25	37	1.6	232.0	16	0.90	225	Y
IH36242303/40	32	44	1.6	232.0	16	1.20	260	Y
IH36242304/40	38	51	1.6	232.0	16	1.50	335	Y
IH36242305/40	50	66	1.6	232.0	16	2.20	410	Y
IH36242306/40	63.5	79	1.6	232.0	16	2.80	450	Ν
IH36242307/40	75	91	1.6	232.0	16	3.30	525	Y
IH36242309/40	100	116	1.2	180.0	12	4.70	675	Ν

Bold printed part numbers are stock products.

Hose layline example

GAMBRINUS UPE SD - I.D. - WP ...bar - M

— 一万	

H5



(]

GAMBRINUS BLUE 10

Designed to handle fatty foods, milk in a variety of transfer and delivery applications, including milk collection.

Hose Construction

Tube:	White, smooth NBR Phthalates free
	rubber compound, non-toxic,
	odorless and taste-free.
	Manufactured on stainless steel
	mandrel for the maximum cleanli-
	ness, hygienic standards and a
	bacteria-free surface.
Reinforcement:	Synthetic textile fabrics
Cover:	Blue NBR/PVC rubber compound,
	non- marking, abrasion and
	weather-resistant

Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F) sterilization at 110 °C for max 10 min.

Bold printed part numbers are stock products.



- According to FDA, BfR class 2, DM 21/03/73, EC 1935/2004
- Indoors and outdoors
- ADI free
- Design Factor 3:1

Tolerances

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Fitting Series IF stainless steel

Part Number			🔉 ма	ax. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36242431/40	19	29	1.0	150.0	10	0.67	120	Y
IH36242432/40	25	36	1.0	150.0	10	0.80	150	Y
IH36242434/40	32	44	1.0	150.0	10	1.23	190	Y
IH36242435/40	38	50	1.0	150.0	10	1.38	240	Y
IH36242436/40	40	52	1.0	150.0	10	1.41	250	Y
IH36242437/40	45	57	1.0	150.0	10	1.62	310	Ν
IH36242438/40	51	64	1.0	150.0	10	1.88	350	Y
IH36242439/40	60	73	1.0	150.0	10	2.24	410	Ν
IH36242440/40	63.5	77	1.0	150.0	10	2.60	450	Ν
IH36242441/40	70	83	1.0	150.0	10	2.86	550	Ν
IH36242442/40	76	89	1.0	150.0	10	3.00	600	Ν
IH36242443/40	80	93	1.0	150.0	10	3.17	630	Ν
IH36242444/20	102	116	1.0	150.0	10	4.60	750	Ν

RUBBER HOSE GAMBRINUS BLUE 10 bar 🛛 🖓 FDA - EC 1935/2004	
 H6	Catalogue 4401/UK

– Beverage & Food

Т

hymatik

GAMBRINUS BLUE 10 SM

Designed to handle fatty foods, milk in a variety of suction and delivery applications indoors and outdoors, including milk collection.

Hose Construction

Tube:	White, smooth NBR Phthalates free
	rubber compound, non-toxic,
	odorless and taste-free.
	Manufactured on stainless steel
	mandrel for the maximum cleanli-
	ness, hygienic standards and a
	bacteria-free surface.
Reinforcement:	Synthetic textile fabrics and
	embedded steel wire helix
Cover:	Blue NBR/PVC rubber compound,
	non-marking, abrasion and
	weather-resistant.

Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F) sterilization at 110 °C for max 10 min.

Bold printed part numbers are stock products.



- According to FDA, BfR class 2, DM 21/03/73, EC 1935/2004
- Excellent flexibility, kink resistance, easy handling
- ADI free
- Design Factor 3:1
- Vacuum: 0.9 bar

Tolerances

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Fitting Series IF stainless steel

Part Number			S Ma	ax. Working	g Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36242401/40	19	29	1.0	150.0	10	0.67	38	Y
IH36242402/40	25	36	1.0	150.0	10	0.80	50	Y
IH36242404/40	32	44	1.0	150.0	10	1.23	64	Y
IH36242405/40	38	50	1.0	150.0	10	1.38	76	Y
IH36242406/40	40	52	1.0	150.0	10	1.41	80	Y
IH36242407/40	45	57	1.0	150.0	10	1.62	90	Ν
IH36242408/40	51	64	1.0	150.0	10	1.88	102	Y
IH36242409/40	60	73	1.0	150.0	10	2.24	150	Ν
IH36242410/40	63.5	77	1.0	150.0	10	2.60	160	Y
IH36242411/40	65	79	1.0	150.0	10	2.66	170	Y
IH36242412/40	70	83	1.0	150.0	10	2.86	180	Ν
IH36242413/40	76	89	1.0	150.0	10	3.00	190	Y
IH36242414/40	80	93	1.0	150.0	10	3.17	250	Y
IH36242415/20	102	116	1.0	150.0	10	4.60	380	Y

RUBBER HOSE GAMBRINUS BLUE 10 bar 🔐 FDA - EC 1935/2004 🛞 Parker	
 H7	Catalogue 4401/UK



(T

GAMBRINUS RED 10 SM

Recommended for wine, beer, liqueurs, fruit juice and soft drinks in process, package and transfer phase. Ideal either fixed and mobile installation. Not suitable for fatty food. Designed for suction and delivery.

Hose Construction

Tube:	White, smooth EPDM Phthalates				
	free rubber compound, non-toxic,				
	odorless and taste-free.				
	Manufactured on stainless steel				
	mandrel for the maximum				
	cleanliness and hygienic standards				
Reinforcement:	Synthetic textile fabrics and embedded steel wire helix				
Cover:	Red EPDM rubber compound, non-marking, abrasion and weather-resistant				

Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) sterilization at 130 °C for max 30 min.

Bold printed part numbers are stock products.



- According to FDA, BfR class 2, DM 21/03/73, EC 1935/2004
- Up to 96 % alcoholic content
- Excellent flexibility, kink resistance, easy handling
- ADI free
- Crimped Stainless Steel Fittings
 available
- Design Factor 3:1
- Vacuum: 0.9 bar

Tolerances According to RMA steel mandrel Refer to Technical Handbook on page TH34

Fitting Series IF stainless steel

Part Number			Max. Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36242501/40	19	29	1.0	150.0	10	0.67	80	Ν
IH36242502/40	25	36	1.0	150.0	10	0.80	125	Ν
IH36242503/40	30	42	1.0	150.0	10	1.11	150	Ν
IH36242504/40	32	44	1.0	150.0	10	1.23	160	Ν
IH36242505/40	38	50	1.0	150.0	10	1.38	190	Y
IH36242506/40	40	52	1.0	150.0	10	1.41	200	Ν
IH36242507/40	45	57	1.0	150.0	10	1.62	225	Ν
IH36242508/40	51	64	1.0	150.0	10	1.88	255	Y
IH36242509/40	60	73	1.0	150.0	10	2.24	300	Ν
IH36242510/40	63.5	77	1.0	150.0	10	2.60	320	Y
IH36242511/40	76	89	1.0	150.0	10	3.00	390	Y
IH36242512/40	80	93	1.0	150.0	10	3.17	440	Ν
IH36242513/20	102	116	1.0	150.0	10	4.60	560	Ν

RUBBER HOSE GAMBRINUS RED 10 bay 1 Bir - D.M. 21/03/73	
 H8	Catalogue 4401/UK



(?)

– Beverage & Food

I

hvmatik

VINITRESS

For delivery of foodstuff in general industrial purposes and for agriculture applications.

Hose Construction Flexible, transparent PVC hose having a textile reinforcement between the walls.

Temperature Range -20 °C (-4 °F) TO +60 °C (140 °F) sterilization at 130 °C for short periods

- According to European Directive EU 10/2011 Class A, B and C
- Low duty mission profile
- Transparent structure to visually monitor the passage of media
- Design Factor 3:1

Tolerances

Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products. min. Bend ÿ \bigcirc \bigcirc 团 in Max. Working Pressure Weight Part Number Stock Radius I.D. (mm) O.D. (mm) MPa kg/m psi bar mm IH35033229/100 6 12 2.0 300.0 20 0.10 40 Y IH35033230/100 8 2.0 300.0 20 0.13 14 50 Υ IH35033223/50 300.0 9 15 2.0 20 0.14 50 Y IH35033231/100 10 2.0 300.0 20 0.15 16 60 Υ IH35033220/50 13 19 1.2 174.0 12 0.18 80 Υ IH35033222/50 15 21 1.2 174.0 12 0.21 90 Υ 26 IH35033221/50 19 1.0 150.0 10 0.30 110 Υ 0.8 IH35033245/50 25 33 116.0 8 0.44 150 Υ IH35033241/25 32 42 0.7 101.5 7 0.71 190 Ν 48 0.6 6 0.82 230 IH35033246/25 38 87.0 Ν IH35033240/25 40 50 0.6 87.0 6 0.86 240 Ν

Hose layline example

VINITRESS 🖾 FOOD QUALITY - MADE IN ITALY - PARKER

H9



Beverage & Food

(T

APERSPIR

Suitable for suction and delivery of foodstuff in general industrial purposes and for agriculture applications.

Hose Construction

Flexible and light hose having an harmonic steel wire helix embedded in a transparent PVC wall.

Temperature Range

-10 °C (+14 °F) to +60 °C (+140 °F)



- According to European Directive EU 10/2011 Class A, B and C
- Medium and heavy duty mission
 profile
- Vacuum: 0.8 bar

Part Number	I.D. (mm)	Wall (mm)	р МРа	lax. Working	g Pressure bar	Weight kg/m	min. Bend Radius mm	in Stock
	, <i>,</i> ,	. ,				<u> </u>		
IH35641012/30	12	3.1	1.2	174.0	12	0.19	24	Y
IH35641016/50	16	3.1	1.2	174.0	12	0.26	32	Y
IH35641019/50	19	3	1.1	160.0	11	0.33	28	Y
IH35641020/50	20	3	1	145.0	10	0.34	30	Y
IH35641025/50	25	3.7	1	145.0	11	0.52	38	Y
IH35641030/50	30	3.7	0.9	130.0	9	0.63	45	Y
IH35641032/50	32	4	0.9	130.0	9	0.66	48	Y
IH35641038/50	38	4	0.9	130.0	9	0.80	57	Y
IH35641040/50	40	4.5	0.9	130.0	9	0.95	80	Y
IH35641045/50	45	4.5	0.9	130.0	9	1.15	67	Y
IH35641050/50	50	4.9	0.9	130.0	9	1.30	75	Y
IH35641060/50	60	5.5	0.9	130.0	9	1.75	120	Y
IH35641075/50	75	6.5	0.9	130.0	9	2.30	150	Ν
IH35641100/30	100	7.5	0.9	130.0	9	3.65	200	Ν
IH35641120/30	120	7.5	0.9	130.0	9	4.30	240	Ν
IH35641125/30	125	7.8	0.9	130.0	9	4.60	250	Ν
IH35641150/20	150	9	0.9	130.0	9	6.50	300	Ν

Bold printed part numbers are stock products.

APERSPIR I.D. mm. 🖾 FOOD QUALITY - MADE IN ITALY - PARKER	
 H10	Catalogue 4401/UK

Tolerances Refer to Technical Handbook on page TH34

Beverage & Food

P

– Beverage & Food

Т

hymatik

ENOREX

Suction and delivery of wine and liquid foodstuffs in cellars, stores and docks for loading and unloading tankers and storage tankers.

Hose Construction

Flexible and light hose having a red, rigid PVC spiral embedded in transparent PVC wall, manufactured with materials according to EC1933/2004 European Standard for foods, and 2002/95/EC European standard RoHS.

Temperature Range

-25 °C (-13 °F) to +60 °C (+140 °F)

- According to EU 10/2011 Class A, B and C
- Heavy duty mission profile
- Vacuum: 0.9 bar
- Design Factor 3:1
- DM 21/03/73

Tolerances

Refer to Technical Handbook on page TH34

Part Number			Э м	ax. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH35620025/50	25	34	1.0	150.0	10	0.55	125	Ν
IH35620030/50	30	40	1.0	150.0	10	0.65	150	Ν
IH35620040/50	40	50	0.9	130.5	9	0.85	200	Ν
IH35620050/50	50	62	0.8	116.0	8	1.20	250	Ν
IH35620060/50	60	72	0.75	108.8	7.5	1.60	360	Ν
IH35620080/50	80	94	0.65	94.25	6.5	2.20	520	N
IH35620100/25	100	116	0.5	72.5	5	3.36	650	Ν
IH35620120/25	120	138	0.3	43.5	3	4.20	780	Ν

Hose layline example

ENOREX I.D. mm. 🖾 FOOD QUALITY - MADE IN ITALY - PARKER

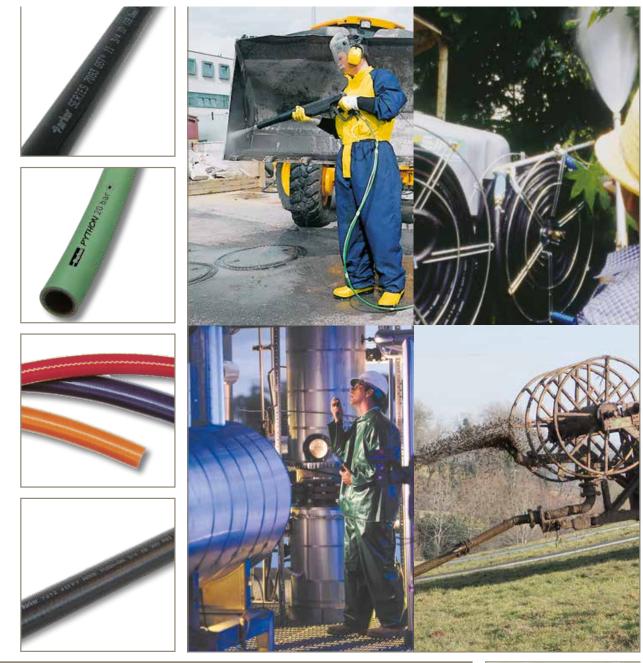
H11

Catalogue 4401/UK



Notes
alogue 4401/UK







ENGINEERING YOUR SUCCESS.



I – Multipurpose & Air

Hose	ID Range (mm)	Temp. Range (°C)	Application
GST II BLACK 15	5 - 38	-40 / +100	compressed air, non aggressive liquids
GST II RED 15	6.5 - 38	-40 / +100	compressed air, non aggressive liquids
GST II BLACK 20	6.5 - 25	-40 / +100	compressed air, non aggressive liquids
PYTHON N/L 20	10 - 50	-40 / +120	multipurpose
PYTHON NV/L 20	10 - 50	-40 / +120	multipurpose
PYTHON NY/L 30	6 - 100	-40 / +120	multipurpose
JUMBO N/L	13 - 25	-40 / +120	multipurpose
MINIERA 20 MSHA	19 - 100	-30 / +80	compressed air, non aggressive liquids
E-Z FORM™ MP	12.7 - 75	-34 / +120	high flexible hose for multipurpose
OILPRESS N/L 20	6 - 25	-35 / +100	multipurpose
OILPRESS N/L 30	6 - 25	-35 / +100	multipurpose
APERFRUT 20	8 - 19	-15 / +60	agricultural spray
APERFRUT 40	8 - 13	-15 / +60	agricultural spray
APERFRUT 80	8 - 13	-15 / +60	agricultural spray

 Θ

Ы

hymatik

Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page	
EPDM	textile	EPDM	15	4			14	Air
EPDM	textile	EPDM	15	4			15	જ
EPDM	textile	EPDM	20	4			16	00Se
EPDM	textile	EPDM	20	3			17	purp
EPDM	textile	EPDM	20	3			18	I – Multipurpose
EPDM	textile	EPDM	30	3			19	
EPDM	textile	EPDM	20	3			110	
SBR/NBR	textile	CR	20	3		MSHA	111	
NBR	textile	CR/NBR	5	4	yes		112	
NBR	textile	NBR/PVC	20	3			113	
NBR	textile	NBR/PVC	30	3			113	
PVC	textile	PVC	20	4			114	
PVC	textile	PVC	40	3			114	
PVC	textile	PVC	80	2.5			114	

Multipurpose & Air

Parker



GST II BLACK 15

Parker Global Product

In agriculture, construction, air tool lubricant systems and general industrial for air (including oil mist), mild chemicals and water. Suitable for MRO and OEM channel. Not to be used with oil or refined fuel.

Hose Construction

Tube:	Black EPDM,
	antistatic rubber compound
Reinforcement:	Synthetic textile yarns.
Cover:	Black, smooth EPDM antistatic
	rubber compound resistant to
	abrasion, heat and ozone

Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series

64 + 47 (up to I.D. 25 mm)

Part Number	t Number		Pressure	B Weight	min. Bend Radius	in Stock		
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH709319200/40	5	11	1.5	200.0	15	0.10	40	Y
IH709325200/100	6.5	13	1.5	200.0	15	0.13	50	Y
IH709325200/40	6.5	13	1.5	200.0	15	0.13	50	Y
IH709331200/100	8	15	1.5	200.0	15	0.16	65	Y
IH709331200/40	8	15	1.5	200.0	15	0.16	65	Y
IH709338200/100	9.5	17	1.5	200.0	15	0.20	75	Y
IH709338200/40	9.5	17	1.5	200.0	15	0.20	75	Y
IH709350200/100	13	21	1.5	200.0	15	0.29	105	Y
IH709350200/40	13	21	1.5	200.0	15	0.29	105	Y
IH709363200/100	16	25	1.5	200.0	15	0.36	130	Y
IH709363200/40	16	25	1.5	200.0	15	0.36	130	Y
IH709375200/40	19	28	1.5	200.0	15	0.49	150	Y
IH7093100200/40	25	36	1.5	200.0	15	0.69	200	Y
IH7093125204/40	32	45	1.5	200.0	15	1.15	230	Y
IH7093150204/40	38	52	1.5	200.0	15	2.76	250	Y

Bold printed part numbers are stock products.

 arker SERIES 7093 GST° II ID (mm) 200 PSI (15 bar) MAX WP	
 14	Catalogue 4401/UK



Θ

hymatik

GST II RED 15

Parker Global Product

In agriculture, construction, air tool lubricant systems and general industrial for air (including oil mist), mild chemicals and water. Suitable for MRO and OEM channel. Not to be used with oil or refined fuel..

Hose Construction

Tube:	Black EPDM,
	antistatic rubber compound.
Reinforcement:	Synthetic textile yarns
Cover:	Red, smooth EPDM insulating
	rubber compound resistant to
	abrasion, heat and ozone

Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



Fitting Series 64 + 47 (up to I.D. 25 mm)

Bold printed part numbers are stock products.								
Part Number			S Max	Max. Working Pressure		B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH709225200/40	6.5	13	1.5	200.0	15	0.13	50	Ν
IH709231200/40	8	15	1.5	200.0	15	0.16	65	Ν
IH709238200/40	9.5	17	1.5	200.0	15	0.20	75	Ν
IH709250200/40	13	21	1.5	200.0	15	0.29	105	Y
IH709263200/40	16	25	1.5	200.0	15	0.36	130	Y
IH709275200/40	19	28	1.5	200.0	15	0.49	150	Y
IH7092100200/40	25	36	1.5	200.0	15	0.69	200	Y
IH7092125204/40	32	45	1.5	200.0	15	1.15	230	Ν
IH7092150204/40	38	52	1.5	200.0	15	2.76	250	Ν

Hose layline example

SERIES 7092 GST® II ... ID (..mm) 200 PSI (15 bar) MAX WP



GST II BLACK 20

Parker Global Product

Designed for compressed air with traces of oil in industrial application. Also suitable in agriculture, construction, and general industry for water, mild chemicals and non aggressive fluids. Not to be used with oil or refined fuel.

Hose Construction

Tube:	Black EPDM,
	antistatic rubber compound.
Reinforcement:	Synthetic textile yarns.
Cover:	Black, smooth EPDM antistatic
	rubber compound resistant to
	abrasion, heat and ozone

Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



Fitting Series 64 + 47

Part Number			S Max	k. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH709325300/100	6.5	14	2.0	300.0	20	0.16	50	Y
IH709331300/100	8	16	2.0	300.0	20	0.20	65	Y
H709332300/400	8	17	2.0	300.0	20	0,21	70	Y
IH709338300/100	9.5	17.5	2.0	300.0	20	0.23	75	Y
IN709339300/100	10	19	2.0	300.0	20	0,30	85	Y
IH709350304/100	13	22	2.0	300.0	20	0.36	105	Y
IH709363304/100	16	27	2.0	300.0	20	0.52	130	Y
IH709375304/40	19	29.5	2.0	300.0	20	0.56	150	Y
IH7093100304/40	25	36.5	2.0	300.0	20	0.75	200	Y

Bold printed part numbers are stock products.

Parker SERIES 7093 GST [®] II ID (mm) 300 PSI (20 bar) MAX WP	
 16	Catalogue 4401/UK

hymatik

PYTHON N/L 20

Designed for air, cold and hot water and light-chemical media. Major properties of PYTHON hoses are:

- high ozone resistance
- antistatic resistance
- high temperature resistance
- low temperature resistance
- non-staining cover
- high flexibility

Hose Construction

Tube:	Black, antistatic (R<10 ⁶ Ω/m), smooth EPDM nitrosamine free rubber compound, resistant to light- chemical media
Reinforcement:	Synthetic textile yarns
Cover:	Black, antistatic (R<10 ⁶ Ω /m),
	smooth EPDM nitrosamine free
	rubber compound

- Antistatic tube and cover suitable for Atex applications
- Unmatchable handiness
- Wide range temperature
- Its versatility of use helps to keep a controlled stock
- Nitrosamine free
- Design Factor 3:1

Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) with peaks to +140 °C (+284 °F)

Tolerances

I.D. \leq 25 mm according to UNI EN ISO 1307 I.D. > 25 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Fitting Series

64 + 47 (up to I.D. 25 mm) 48 (from I.D. 32 up to 50 mm)

Part Number			Max. Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30351270/40	10	17	2.0	300.0	20	0.22	60	Ν
IH30351271/40	13	20	2.0	300.0	20	0.26	80	Y
IH30351272/40	15	22	2.0	300.0	20	0.29	90	Ν
IH30351273/40	19	27	2.0	300.0	20	0.41	110	Y
IH30351274/40	25	34	2.0	300.0	20	0.60	150	Y
IH36351270/40	32	44	2.0	300.0	20	0.98	320	Ν
IH36351271/40	38	51	2.0	300.0	20	1.20	380	Ν
IH36351272/40	50	66	2.0	300.0	20	1.76	500	Ν

Bold printed part numbers are stock products.

-Parker PYTHON 20 bar 👁	
 17	Catalogue 4401/UK



PYTHON NV/L 20

Designed for air, cold and hot water and light-chemical media. Major properties of PYTHON hoses are:

- high ozone resistance
- antistatic resistance
- high temperature resistance
- low temperature resistance
- non-staining cover
- high flexibility

Hose Construction

Tube:	Black, antistatic, smooth EPDM
	nitrosamine free rubber compound,
	resistant to light-chemical media
Reinforcement:	Synthetic textile yarns
Cover:	Green, smooth EPDM
	nitrosamine free rubber compound

Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) with peaks to +140 °C (+284 °F)

Bold printed part numbers are stock products.



- Unmatchable handiness
- Its versatility of use helps to keep a controlled stock
- Wide range temperature
- Nitrosamine free
- Design Factor 3:1

Tolerances

I.D. \leq 25 mm according to UNI EN ISO 1307 I.D. > 25 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Fitting Series

64 + 47 (up to I.D. 25 mm) 48 (from I.D. 32 up to 50 mm)

Part Number			S Max	k. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30351200/40	10	17	2.0	300.0	20	0.22	60	Y
IH30351201/40	13	20	2.0	300.0	20	0.26	80	Y
IH30351202/40	15	22	2.0	300.0	20	0.29	90	Y
IH30351203/40	19	27	2.0	300.0	20	0.41	110	Y
IH30351204/40	25	34	2.0	300.0	20	0.60	150	Y
IH36351201/40	32	44	2.0	300.0	20	0.98	320	Y
IH36351202/40	38	51	2.0	300.0	20	1.20	380	Y
IH36351203/40	42	56	2.0	300.0	20	1.42	420	Y
IH36351204/40	50	66	2.0	300.0	20	1.76	500	Y

-Parker PYTHON 20 bar 🛞	
 18	Catalogue 4401/UK

PYTHON NY/L 30

Designed for air, cold and hot water and light-chemical media. Major properties of PYTHON hoses are:

- high ozone resistance
- antistatic resistance
- high temperature resistance
- low temperature resistance
- non-staining cover
- high flexibility

Hose Construction

Tube:	Black, antistatic, smooth EPDM
	nitrosamine free rubber compound,
	resistant to light-chemical media
Reinforcement:	Synthetic textile yarns
Cover:	Yellow, smooth EPDM
	nitrosamine free rubber compound

Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) with peaks to +140 °C (+284 °F)

Bold printed part numbers are stock products.

 Unmatchable handiness Its versatility of use helps to keep a controlled stock Wide range temperature Nitrosamine free Design Factor 3:1
Tolerances

 $I.D. \le 25 \text{ mm}$ according to UNI EN ISO 1307 I.D. > 25 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Fitting Series

64 + 47 (up to I.D. 25 mm) 48 (from I.D. 32 up to 50 mm)

Part Number	I.D. (mm)	O.D. (mm)	Max MPa	x. Working	Pressure bar	Weight kg/m	min. Bend Radius mm	in Stock
IH30351250/40	6	14	3.0	450.0	30	0.18	40	Y
IH30351251/40	8	17	3.0	450.0	30	0.25	50	Y
IH30351252/40	10	20	3.0	450.0	30	0.34	60	Y
IH30351253/40	13	23	3.0	450.0	30	0.40	80	Y
IH30351254/40	16	27	3.0	450.0	30	0.52	100	Y
IH30351255/40	19	30	3.0	450.0	30	0.60	110	Y
IH30351256/40	25	37	3.0	450.0	30	0.88	150	Y
IH36351250/40	32	44	3.0	450.0	30	0.95	320	Y
IH36351251/40	38	51	3.0	450.0	30	1.20	380	Y
IH36351252/40	42	56	3.0	450.0	30	1.45	420	Ν
IH36351253/40	50	66	3.0	450.0	30	1.93	500	Y
IH36351254/20	65	82	3.0	450.0	30	2.50	650	Ν
IH36351255/20	76	92	3.0	450.0	30	3.08	750	Ν
IH36351256/20	100	122	3.0	450.0	30	5.05	1000	Ν

Hose layline example

-Parker PYTHON 30 bar 📀	
 19	Catalogue 4401/UK

|I – Multipurpose & Air

hymatik



JUMBO

Suitable for the discharge of hot and cold water, air and light-chemical media in many industrial and agricultural applications.

Hose Construction

Tube:	Black, smooth EPDM nitrosamine
	free rubber compound
Reinforcement:	Synthetic textile yarns
Cover:	Black, smooth EPDM nitrosamine
	free rubber compound with three
	red, longitudinal and different
	stripes, resistant to abrasion, heat
	and weathering

Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F)



- Agriculture, construction and general industrial
- Long lasting embossed type branding
- Three red strips for easy hose identification
- Nitrosamine free
- Design Factor 3:1



Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series 64 + 47

Bold printed part numbers are stock products.

Part Number			Max. Working Pressure			B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30116500/40	13	19	2.0	300.0	20	0.21	75	Y
IH30116501/40	15	22	2.0	300.0	20	0.28	90	Y
IH30116502/40	19	27	2.0	300.0	20	0.40	110	Y
IH30116504/40	25	34	2.0	300.0	20	0.57	150	Y

JUMBO (logo) WASSERSCHLAUCH (logo) JUMBO 20 bar Ø mm. MAX 120°C	
 l10	Catalogue 4401/UK

hymatik

MINIERA 20 MSHA

Suitable for compressed air tools in factories and designed for quarries, building and mining industries. Tube resistant to traces of oil mist for medium duty.

Hose Construction

Tube:	Black, oil mist resistant, smooth
	SBR/NBR rubber compound
Reinforcement:	Synthetic textile fabrics
Cover:	Black, abrasion, ageing and
	weather-resistant CR nitrosamine
	free rubber compound

Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



Tolerances

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			S Max	k. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36342161/40	19	30	2.0	300.0	20	0.62	190	N
IH36342162/40	25	37	2.0	300.0	20	0.81	250	Y
IH36342163/40	30	42	2.0	300.0	20	0.98	300	Ν
IH36342164/40	32	46	2.0	300.0	20	1.24	320	Y
IH36342165/40	38	52	2.0	300.0	20	1.43	380	Ν
IH36342166/40	40	56	2.0	300.0	20	1.73	400	Ν
IH36342167/40	45	61	2.0	300.0	20	1.91	450	Ν
IH36342168/40	50	66	2.0	300.0	20	2.08	500	Ν
IH36342169/40	60	76	2.0	300.0	20	2.38	600	Ν
IH36342170/20	75	91	2.0	300.0	20	2.89	750	Ν
IH36342171/20	100	118	2.0	300.0	20	4.23	1000	Ν

RUBBER AIR HOSE MINIERA 20 bar MSHA	-Parker
 111	Catalogue 4401/UK



E-Z FORM™ MP

Parker Global Product

Suitable for biodiesel, diesel, ethanol and gasoline in oil suction/return lines, vehicle fuel fill connector lines, drain lines on buses, cranes, mobile off-road equipment. Extremely flexible and lightweight it reduces installation times, eliminates special design, tooling and fabrication cost. Capable of being routed though confined spaces where preshaped and formed hose are normally required. Do not use for fuel dispensing or drag across sharp edges or very abrasive surfaces.

Hose Construction

Tube:	Black NBR, antistatic
	rubber compound
Reinforcement:	Multiple textile plies with wire helix
Cover:	Black, Greek corrugated CR rub-
	ber compound resistant to oil and
	weathering

Temperature Range

ID up to 25 mm: -34 °C (-30 °F) to +121 °C (+250 °F) all other sizes: -29 °C (-20 °F) to +93 °C (+200 °F)

- Saves time and costs thanks to easy and quick assembly
- Superior kink resistance, minimal force to bend, outstanding flexibility
- Permanent fittings capability
- Design Factor 4:1
- Vacuum: 0.9 bar

Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series 48 (up to I.D. 51 mm)

Part Number			S Max	k. Working	Pressure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH72190500/10	12.7	23.8	0.5	75	5	0.45	23	Y
IH72190625/10	15.9	27.0	0.5	75	5	0.55	33	Y
IH72190750/10	19.1	30.0	0.5	75	5	0.58	36	Y
IH72191000/10	25.4	36.0	0.5	75	5	0.68	36	Y
IH72191250/10	32.0	43.0	0.5	75	5	0.75	56	Y
IH72191500/10	38.0	49.0	0.5	75	5	0.85	74	Y
IH72192000/10	51.0	63.0	0.5	75	5	1.44	117	Y
IH72192500/10	63.5	76.5	0.5	75	5	1.74	183	Y
IH72193000/10	76.0	90.0	0.5	75	5	2.23	223	Y

Bold printed part numbers are stock products.

	Porter SERIES 7219 E-Z FORM MP HOSE 75 PSI MAX WP	
Parker	112	Catalogue 4401/UK

OILPRESS N/L 20 - 30

Suitable for multi-purpose applications requiring transfer of many types of fluids and for petroleum products with aromatic content not exceeding 50 %.

Hose Construction

Tube:	Smooth, black, oil and fuel resistant NBR rubber compound, suitable for petroleum products with aromatic
	content not exceeding 50 %
Reinforcement:	Synthetic textile yarns
Cover:	Smooth, black, antistatic
	(R < 1 M Ω /m) heat, oil, abrasion
	and weather resistant NBR/PVC
	rubber compound

Temperature Range

-35 °C (-31 °F) to +100 °C (+212 °F), with peaks up to +120 °C (+248 °F) for oil

Bold printed part numbers are stock products.

		1		\mathcal{D}
		13	888 ·	1
		2	888 -	(and
		13	8888	1 1
		13	8988.	14

- Agriculture, construction and general industrial
- Suitable for many different fuels included Biodiesel B100
- Two different Working Pressure lines
- Wide range temperature
- Design Factor 3:1

Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Fitting Series 64 + 47

Part Number			S Max	x. Working	Pressure	B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
OILPRESS N/L 20								
IH30832000/40	6	12	2.0	300.0	20	0.12	25	Y
IH30832001/40	8	14	2.0	300.0	20	0.15	35	Y
IH30832002/40	10	17	2.0	300.0	20	0.21	40	Y
IH30832003/40	13	20	2.0	300.0	20	0.26	55	Y
IH30832004/40	16	23	2.0	300.0	20	0.31	65	Y
IH30832005/40	19	28	2.0	300.0	20	0.47	80	Y
IH30832006/40	25	36	2.0	300.0	20	0.74	100	Y
OILPRESS N/L 30								
IH30832031/40	6	14	3.0	450.0	30	0.18	25	Ν
IH30832032/40	8	16	3.0	450.0	30	0.21	30	Ν
IH30832038/40	9	17	3.0	450.0	30	0.24	35	Ν
IH30832033/40	10	18	3.0	450.0	30	0.25	40	Y
IH30832034/40	13	23	3.0	450.0	30	0.40	55	Y
IH30832035/40	16	27	3.0	450.0	30	0.47	65	Ν
IH30832036/40	19	30	3.0	450.0	30	0.60	80	Ν
IH30832039/40	25	37	3.0	450.0	30	0.83	100	Ν

Hose layline example

RUBBER HOSE OILPRESS W.P. bar R<1M Ω	
 113	Catalogue 4401/UK

– Multipurpose & Air

hymatik



APERFRUT 20 - 40 - 80

For delivery of air, water and all fungicide products. Particularly suitable for spraying in agriculture. Resistant to compressor oil-mist.

Hose Construction

Tube:	Black, smooth, PVC compound
Reinforcement:	Synthetic textile yarns
Cover:	Orange (20), red (40) and blue (80),
	smooth, abrasion, and weather-
	resistant PVC compound

Temperature Range

-15 °C (+5 °F) to +60 °C (+140 °F)



- applicationsDesign Factor3:1 for 20 and 40 barDesign Factor
 - 2.5:1 for 80 bar

Tolerances

Refer to Technical Handbook on page TH34

Bold printed part numbers are stock products.

Part Number			Max. Working Pressure			B Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
APERFRUT 20								
IH35040010/100	8	13	2.0	300.0	20	0.11	30	Y
IH35040012/100	10	15	2.0	300.0	20	0.14	55	Y
IH35040014/100	13	19	2.0	300.0	20	0.20	85	Y
IH35040015/100	16	23	2.0	300.0	20	0.29	90	Ν
IH35040016/100	19	26.5	2.0	300.0	20	0.33	100	Y
APERFRUT 40								
IH35040260/100	8	14	4.0	600.0	40	0.14	30	N
IH35040261/100	10	16	4.0	600.0	40	0.17	50	Y
IH35040114/100	13	21	4.0	600.0	40	0.29	80	Ν
APERFRUT 80								
IH35040268/100	8	15	8.0	1200.0	80	0.17	25	Ν
IH35040270/100	10	18	8.0	1200.0	80	0.23	45	Y
IH35040214/100	13	23	7.0	1015.0	70	0.38	60	Y

APERFRUT 80 bar PARKER	
 114	Catalogue 4401/UK



	Notes
Catalo	ogue 4401/UK



Parker's Motion & Control **Technologies**

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker.

For further info call 00800 27 27 5374



Aerospace **Key Markets**

Aftermarket services Commercial transports Engines General & business aviation Helicopters Launch vehicles Military aircraft Missiles Power generation Regional transports Unmanned aerial vehicles

Key Products Control systems & actuation products Engine systems & components Fluid conveyance systems & components Fluid metering, delivery & atomization devices Fuel systems & components Fuel tank inerting systems Hydraulic systems & components Thermal management Wheels & brakes



Climate Control Key Markets

Agriculture Air conditioning Construction Machinery Food & beverage Industrial machinery Life sciences Oil & gas Precision cooling Process Refrigeration Transportation

Key Products

Accumulators Advanced actuators CO₂ controls Electronic controllers Filter driers Hand shut-off valves Heat exchangers Hose & fittings Pressure regulating valves Refrigerant distributors Safety relief valves Smart pumps Solenoid valves Thermostatic expansion valves



Hydraulics

Key Markets Aerial lift Agriculture Alternative energy Construction machinery Forestry Industrial machinery Machine tools Marine Material handling Mining Oil & das Power generation Refuse vehicles Renewable energy Truck hydraulics Turf equipment

Key Products

Accumulators Cartridge valves Electrohydraulic actuators Human machine interfaces Hybrid drives Hydraulic cylinders Hydraulic motors & pumps Hydraulic systems Hydraulic valves & controls Hydrostatic steering Integrated hydraulic circuits Power take-offs Power units Rotary actuators Sensors



Aerospace

Conveyor & material handling

Factory automation

Machine tools

Transportation &

automotive

Life science & medical

Packaging machinery

Key Products

Air preparation Brass fittings & valves Manifolds Pneumatic accessories Pneumatic actuators & grippers Pneumatic valves & controls Quick disconnects Rotary actuators Rubber & thermoplastic hose & couplings Structural extrusions Thermoplastic tubing & fittings Vacuum generators, cups & sensors







Electromechanical

Key Markets

Aerospace Factory automation Life science & medical Machine tools Packaging machinery Paper machinery Paper machinery & converting Primary metals Semiconductor & electronics Textile Wire & cable Key Products AC/DC drives & systems Electric actuators, gantry robots & slides Electrohydrostatic actuation systems Electromechanical actuation systems Human machine interface Linear motors Stepper motors, servo motors, drives & controls Structural extrusions



Filtration

Key Markets

Aerospace Food & beverage Industrial plant & equipment Life sciences Marine Mobile equipment Oil & gas Power generation & renewable energy Process Transportation Water Purification **Key Products** Analytical gas generators Compressed air filters & dryers Engine air, coolant, fuel & oil filtration systems Fluid condition monitoring systems Hydraulic & lubrication filters Hydrogen, nitrogen & zero air generators Instrumentation filters Membrane & fiber filters Microfiltration Sterile air filtration Water desalination & purification filters &



Fluid & Gas Handling Key Markets | Key

Aerial lift Agriculture Bulk chemical handling Construction machinery Food & beverage Fuel & gas delivery Industrial machinery Life sciences Marine Mining Mobile Oil & gas Renewable energy Transportation

Key Products

Check valves Connectors for low pressure fluid conveyance Deep sea umbilicals Diagnostic equipment Hose couplings Industrial hose Mooring systems & power cables PTFE hose & tubing Quick couplings Rubber & thermoplastic hose Tube fittings & adapters Tubing & plastic fittings



Process Control

Key Markets

Alternative fuels Biopharmaceuticals Chemical & refining Food & beverage Marine & shipbuilding Medical & dental Microelectronics Nuclear Power Offshore oil exploration Oil & gas Pharmaceuticals Power generation Pulp & paper Steel Water/wastewater Key Products

Analytical Instruments Analytical sample conditioning products & systems Chemical injection fittings & valves Fluoropolymer chemical delivery fittings, valves & pumps High purity gas delivery fittings, valves, regulators & digital flow controllers Industrial mass flow meters/controllers Permanent no-weld tube fittings Precision industrial regulators & flow controllers Process control double block & bleeds Process control fittings, valves, regulators & manifold valves



systems

Sealing & Shielding

Key Markets Aerospace Chemical processing Consumer Fluid power General industrial Information technology Life sciences Microelectronics Military Oil & gas Power generation Renewable energy Telecommunications Transportation

Dynamic seals Elastomeric o-rings Electro-medical instrument design & assembly EMI shielding Extruded & precision-cut, fabricated elastomeric seals High temperature metal seals Homogeneous & inserted elastomeric shapes Medical device fabrication & assembly Metal & plastic retained composite seals Shielded optical windows Silicone tubing & extrusions Thermal management Vibration dampening

Key Products

ENGINEERING YOUR SUCCESS.



Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates,

Dubai Tel: +971 4 8127100 parker.me@parker.com

AT – Austria, St. Florian Tel: +43 (0)7224 66201 parker.austria@parker.com

AZ – Azerbaijan, Baku Tel: +994 50 2233 458 parker.azerbaijan@parker.com

BE/NL/LU – Benelux, Hendrik Ido Ambacht Tel: +31 (0)541 585 000 parker.nl@parker.com

BG - Bulgaria, Sofia Tel: +359 2 980 1344 parker.bulgaria@parker.com

BY – Belarus, Minsk Tel: +48 (0)22 573 24 00 parker.poland@parker.com

CH – Switzerland, Etoy Tel: +41 (0)21 821 87 00 parker.switzerland@parker.com

CZ – Czech Republic, Klecany Tel: +420 284 083 111 parker.czechrepublic@parker.com

DE – Germany, Kaarst Tel: +49 (0)2131 4016 0 parker.germany@parker.com

DK – Denmark, Ballerup Tel: +45 43 56 04 00 parker.denmark@parker.com

ES – Spain, Madrid Tel: +34 902 330 001 parker.spain@parker.com

FI – Finland, Vantaa Tel: +358 (0)20 753 2500 parker.finland@parker.com

FR – France, Contamine s/Arve Tel: +33 (0)4 50 25 80 25 parker.france@parker.com

GR – Greece, Piraeus Tel: +30 210 933 6450 parker.greece@parker.com

HU – Hungary, Budaörs Tel: +36 23 885 470 parker.hungary@parker.com **IE – Ireland,** Dublin Tel: +353 (0)1 466 6370 parker.ireland@parker.com

IL – Israel Tel: +39 02 45 19 21 parker.israel@parker.com

IT - Italy, Corsico (MI) Tel: +39 02 45 19 21 parker.italy@parker.com

KZ – Kazakhstan, Almaty Tel: +7 7273 561 000 parker.easteurope@parker.com

NO – Norway, Asker Tel: +47 66 75 34 00 parker.norway@parker.com

PL – Poland, Warsaw Tel: +48 (0)22 573 24 00 parker.poland@parker.com

PT – Portugal Tel: +351 22 999 7360 parker.portugal@parker.com

RO – Romania, Bucharest Tel: +40 21 252 1382 parker.romania@parker.com

RU – Russia, Moscow Tel: +7 495 645-2156 parker.russia@parker.com

SE – Sweden, Spånga Tel: +46 (0)8 59 79 50 00 parker.sweden@parker.com

SK – Slovakia, Banská Bystrica Tel: +421 484 162 252 parker.slovakia@parker.com

SL – Slovenia, Novo Mesto Tel: +386 7 337 6650 parker.slovenia@parker.com

TR – Turkey, Istanbul Tel: +90 216 4997081 parker.turkey@parker.com

UA – Ukraine, Kiev Tel: +48 (0)22 573 24 00 parker.poland@parker.com

UK – United Kingdom, Warwick Tel: +44 (0)1926 317 878 parker.uk@parker.com

ZA – South Africa, Kempton Park Tel: +27 (0)11 961 0700 parker.southafrica@parker.com **North America**

CA – Canada, Milton, Ontario Tel: +1 905 693 3000

US – USA, Cleveland Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill Tel: +61 (0)2-9634 7777

CN – China, Shanghai Tel: +86 21 2899 5000

HK – Hong Kong Tel: +852 2428 8008

IN - India, Mumbai Tel: +91 22 6513 7081-85

JP – Japan, Tokyo Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul Tel: +82 2 559 0400

MY – Malaysia, Shah Alam Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington Tel: +64 9 574 1744

SG – Singapore Tel: +65 6887 6300

TH – Thailand, Bangkok Tel: +662 186 7000

TW – Taiwan, Taipei Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos Tel: +55 800 727 5374

CL – Chile, Santiago Tel: +56 2 623 1216

MX – Mexico, Toluca Tel: +52 72 2275 4200

© 2019 Parker Hannifin Corporation. All rights reserved.

EMEA Product Information Centre Free phone: 00 800 27 27 5374 (from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA) US Product Information Centre Toll free number: 1, 800, 27 27 527

Toll-free number: 1-800-27 27 537 www.parker.com Catalogue CAT/4401/UK 2020-04 Punctum / Zalsman

Your local authorized Parker distributor