

General chemical resistance table

Ratings code

- G – Good to excellent. Little or no swelling, tensile or surface changes. Preferred choice.
- L – Marginal or conditional. Noticeable effects but not necessarily indicating lack of serviceability. Further testing suggested for specific application. Very long-term effects such as stiffening or potential for crazing should be evaluated.
- P – Poor or unsatisfactory. Not recommended without extensive and realistic testing.
- – Indicates that this was not tested.

Materials code for hose core tubes

- N** Polyamide
- M** Coextruded tube with Fluoropolymer inner liner

Materials code for hose cover

- N** Polyamide
- U/HF** Polyurethane

Notes on the chemical resistance table

- (1) The fluid resistance tables are simplified rating tabulations based on immersion tests at 24° C. Higher temperatures tend to reduce ratings. Since final selection depends on pressure, fluid and ambient temperature and other factors not known to Parker Hannifin, no performance guarantee is expressed or implied. The indications do not imply any compliance with standards and regulations and do not refer to possible changes of colour, taste or smell. For food and drinking water specially approved materials have to be used. For fluids not listed or for advice on particular applications, please consult Parker Hannifin GmbH, **polyflex** Division in Hüttenfeld, Germany.
- (2) Hose applications for these fluids must take into account legal and insurance regulations. The chemical resistance indicated does not express or imply approval by certain institutions.
- (3) Satisfactory at some concentrations and temperatures, unsatisfactory at others.
- (4) For gas applications, the cover should be pin-pricked and the pressure must not be released quickly. Special safety guard accessories are to be used to prevent damage or personal injury in the event of failure..
- (5) Chemical resistance does not imply low permeation rates. Please consult Parker Hannifin for a recommendation for your specific requirements.
- (6) The indication of chemical resistance does not imply any special food compatibility; it refers only to the chemical resistance of the material.
- (7) Chemical resistance does not imply acceptability for use in airless paintspray applications. These applications require a special, electrically conductive hose.

Not all remarks may apply to Oil&Gas products

Chemical	N	U/HF	M
Acetone	G	P	L
Acetylene	--	--	--
Air (4)	G	G	G
Ammonium Chloride	P	G	G
Ammonium Hydroxyde	G	P	G
Anhydrous Ammonia	P	P	--
Aniline	P	P	G
Aromatic Hydrocarbons	G	L	--
Asphalt	G	G	L
Benzene	G	L	G
Butane (2) (4)	G	L	--
Calcium Chloride	--	G	G
Carbon Dioxide (4)	G	G	--
Carbon Monoxide (4)	--	G	--
Carbon Tetrachloride	G	P	G
Chlorinated Hydrocarbon Base Fluids	G	L	--
Chlorinated Petroleum Oil	G	L	--
Chlorinated Solvents	--	P	--
Chlorine, Gaseous, Dry	P	P	--
Chromic Acid	--	P	L
Citric Acid Solutions	G	L	G
Crude Petroleum Oil	G	G	--
Cyclohexan (2)	G	G	G
Diesel Fuel (2)	G	G	--
Diester Oils	G	P	--
Ethanol (6)	G	L	--
Ethers	G	P	G
Ethylene Glycol	G	L	G
Ethylene Oxide	G	L	--
Fatty Acids	G	--	G
Formaldehyde	L	P	G
Formic Acid J	P	P	G
Fuel Oil (2)	G	L	G
Gas (Oil) (2)	G	G	--
Gasoline	G	--	G
Glycerine	G	L	G

Technical information
General chemical resistance table

Chemical	N	U/HF	M
Glycols (to 135 °F)	G	L	G
Grease (petroleum base)	G	G	--
Hexane (2)	G	G	G
Hydraulic Fluid (petroleum base)	G	G	L
Hydraulic Fluid phosphate ester base)	G	L	--
Hydraulic Fluid water base)	G	G	--
Hydraulic oil (petroleum base)	G	G	L
Hydrochloric Acid	L	P	G
Hydrofluoric Acid	P	P	G
Hydrolube (hydraulic fluid/water glycol base)	G	L	--
IRUS 902 (hydraulic fluid/water-oil emulsion)	G	G	--
Isooctane (2)	G	G	G
Kerosene (2)	G	L	G
Ketones	G	P	G
Lime (calcium oxide)	G	G	G
Lindol (hydraulic fluid/phosphate esters)	G	P	--
LP-Gas	--	--	--
Lubricating Oils (diester base)	G	P	--
Lubricating Oils (petroleum base)	G	G	G
Methane	--	--	--
Methanol	G	P	--
Methyl Alcohol (6)	G	P	G
Methyl Ethyl Ketone (MEK)	G	P	G
Methyl Ethyl Ketone Peroxide (MEKP)	L	P	--
Methyl Isobutyl Ketone (MIBK)	G	P	G
Methylen Chloride	L	P	G
Mineral Oil	G	G	G
Mineral Spirits	--	L	--
Motor Oils	G	G	G
Naphta	G	P	G
Natural Gas (4)	--	--	--
Nitric Acid	P	P	L
Nitrobenzene	G	P	G
Nitrogen, Gaseous (4) (5)	G	G	G
Nitrous Oxide	L	--	--
Oil (SAE)	G	G	--

Chemical	N	U/HF	M
Oxygen, Gaseous (4) (5) (6)	G	G	G
Pentane (2)	G	L	G
Perchloric Acid	P	P	L
Petroleum Ether	--	--	--
Petroleum Oils	G	G	--
Phenols	P	P	--
Phosphate Esters (above 135 °F)	G	P	--
Phosphate Esters (to 135 °F)	G	P	--
Propane (4) (5)	--	--	--
Propylene Glycol	--	G	G
Salt Water	--	--	G
Silicone Greases	G	G	--
Silicone Oils	G	G	--
Sodium Borate	G	G	G
Sodium Carbonate	--	--	--
Sodium Chloride Solutions	G	G	G
Sodium Hydroxide, 50%	P	P	G
Sodium Hypochlorite	P	P	G
Steam	P	P	G
Straight Synthetic Oils (phosphate esters)	G	P	--
Sulphur Dioxide	L	L	G
Sulphur Hexafluoride Gas (4) (5)	G	G	--
Sulphuric Acid	P	P	--
Toluol, Toluene	G	L	G
Trichlorethylene	L	P	G
Ucon (hydraulic fluid/water glycol base)	G	L	--
Water (above 60 °C) (6)	G	P	L
Water (to 60 °C) (6)	G	G	G
Water Glycols (above 60 °C)	L	P	--
Water Glycols (to 60 °C)	G	L	--
Water in oil Emulsions (above 60 °C)	L	P	--
Water in oil Emulsions (to 60 °C)	G	L	--
Xylene	G	P	G
Zinc Chloride	G	G	G