Fluid compatibility chart

The following seal compound and body material compatibility chart is provided as an aid in selecting a specifi c synthetic rubber compound or body material for a particular application.

For recommendations for media not listed here, please contact your Faster representative.

Note: This chart is intended as a guide only and is not to be considered as a recommendation to use Faster quick couplings in a specific application or with a specific fluid. Other factors that must be considered include but are not limited to: fluid and ambient temperature, system pressure, both operating and peaks, frequency of connection and disconnection, and applicable standards or regulations.

Codes: 1 = satisfactory 2 = fair 3 = not recommended 4 = insufficient data available

Media	Body material			Seal material		
	Brass	Steel	316 S.S	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)
Acetamide	4	4	1	1	1	3
Acetic acid (5%)	3	3	1	2	1	1
Acetone	1	2	1	3	1	3
Acetyl acetone	2	2	2	3	1	3
Acetyl chloride	4	2	2	3	3	1
Acetylene	3	2	1	1	1	1
Air (100°C)	1	2	1	1	1	1
Air (150°C)	1	2	1	2	2	1
Air (200°C)	1	2	1	3	3	1
Aluminium acetate	4	4	4	2	1	3
Aluminium bromide	4	4	4	1	1	1
Aluminium chloride (10%)	3	3	3	1	1	1
Aluminium chloride (100%)	3	2	2	1	1	1
Aluminium fluoride	3	3	3	1	1	1
Aluminium nitrate	3	3	2	1	1	1
Aluminium salts	4	4	4	1	1	1
Aluminium sulphate	2	3	2	1	1	1
Ammonia (anhydrous)	3	2	1	2	1	3
Ammonia (cold, gas)	3	2	4	1	1	3
Ammonia (hot, gas)	3	2	4	3	2	3
Ammonium carbonate	3	2	3	3	1	1
Ammonium chloride	3	3	2	1	1	1
Ammonium hydroxide	3	3	1	3	1	3
Ammonium nitrate	3	3	1	1	1	4
Ammonium salts	4	4	4	1	1	3
Ammonium sulphate	3	3	2	1	1	3
Amyl borate	4	4	4	1	3	1
Amyl chloride	4	2	1	4	3	1
Arsenic acid	3	3	1	1	1	1
Asphalt	3	3	1	2	3	1
Barium chloride	3	3	2	1	1	1
Barium hydroxide	3	2	2	1	1	1
Barium salts	4	4	4	1	1	1
Barium sulphide	3	2	3	1	1	1
Beer	3	3	1	1	1	1

Media	Body material			Seal material		
	Brass	Steel	316 S.S	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)
Beet sugar liquors	3	3	1	1	1	1
Benzaldehyde	3	3	2	3	1	3
Benzene	3	2	3	3	3	1
Benzoic acid	3	3	3	3	3	1
Benzyl alcohol	4	3	1	3	2	1
Benzyl chloride	3	3	2	3	3	1
Bleach liquor	4	4	4	3	1	1
Borax	3	2	3	2	1	1
Boric acid	3	3	2	1	1	1
Brine (sodium chloride)	3	3	1	1	1	1
Bromine	4	4	4	3	3	1
Butane	3	1	1	1	3	1
Butane (2.2 & 2.3-dimethyl)	4	4	4	1	3	1
Butanol (butyl alcohol)	2	1	1	1	2	1
Butter (animal fat)	2	3	1	1	1	1
Butyl butyrate	4	4	4	3	1	1
Butyl stearate	4	4	4	2	3	1
Calcine liquors	4	4	4	1	1	1
Calcium acetate	4	4	4	2	1	3
Calcium bisulphite	3	3	2	2	1	2
Calcium carbonate	3	2	3	1	1	1
Calcium chloride	3	3	2	1	1	1
Calcium hydroxide	3	3	2	1	1	1
Calcium hypochlorite	3	3	2	2	1	1
Calcium salts	4	4	4	1	1	1
Calcium sulphide	3	3	2	1	1	1
Cane sugar liquors	4	2	1	1	1	1
Carbon bisulphide	4	4	4	3	3	1
Carbon dioxide	1	2	1	1	1	1
Carbon disulfide	2	2	2	3	3	1
Carbon monoxide	1	1	1	1	1	1
Carbon tetrachloride	2	3	1	2	3	1
Carbon acid	3	3	1	2	1	1
Castor oil	1	1	1	1	2	1
Chlorinated salt brine	4	4	4	3	3	1
Chlorinated solvents	4	4	4	3	3	1
Chlorobenzene	3	3	2	3	3	1
Chlorobutadiene	4	4	4	3	3	1
Chloroform	3	2	2	3	3	1
Chlorophenol	4	4	4	3	3	1
Coconut oil	4	4	4	1	3	1
Copper chloride	4	4	4	1	1	1
Copper salts	4	4	4	1	1	1
Copper sulphate	3	3	2	1	1	1

Media	Body material			Seal material		
	Brass	Steel	316 S.S	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)
Corn oil	2	1	1	1	3	1
Cottonseed oil	3	2	1	1	3	1
Creosols	3	2	1	3	3	1
Creosote	3	3	2	1	3	1
Cresylic acid	4	2	1	3	3	1
Crude oil	3	2	1	2	3	1
Cutting oil	4	1	1	1	3	1
Decane	4	4	4	1	3	1
Denatured alcohol	4	4	4	1	1	1
Detergent (water solution)	3	3	1	1	1	1
Diesel fuel	1	1	1	1	3	1
Diethylene glycol	3	1	1	1	1	1
Dimethyl formamide	4	4	1	2	1	3
Dow chemical HD50-4	4	4	4	4	1	3
Dow corning 200, 510, 550	4	4	4	2	1	1
Dowtherm A, E	3	1	2	3	3	1
Ethanol	1	3	3	3	1	3
Ethyl chloride	2	3	1	1	3	1
Ethyl hexanol	4	4	4	1	1	1
Ethylene dichloride	3	3	1	3	3	1
Ethylene glycol	2	2	1	1	1	1
Fatty acids	3	3	1	2	3	1
Freon 11	1	4	4	2	3	2
Freon 12	1	1	3	2	3	1
Freon 22	1	3	1	3	3	3
Fuel oil	3	1	1	1	3	1
Gallic acid	3	3	2	2	2	1
Gas, liquid, propane (LPG)	1	3	1	1	3	1
Gas, natural	2	3	1	1	3	1
Gasoline / petrol	1	2	1	1	3	1
Gelatine	3	3	1	1	1	1
Glucose	1	1	1	1	1	1
Glycerine (glycerol)	2	1	1	1	1	1
Glycols	3	2	2	1	1	1
Green sulphate liquor	3	3	3	2	1	1
Helium	1	1	1	1	1	1
Heptane	1	1	1	1	3	1
Hydraulic oil (petroleum base)	1	1	1	1	3	1
Hydraulic oil (water base)	4	1	1	2	1	3
Hydrazine	4	3	1	2	1	3
Hydrogen gas	2	2	1	1	1	1
Hydrolube	4	4	4	1	1	1
Iso octane	1	1	1	1	3	1
Isobutyl alcohol	4	4	1	2	1	1

Media	Body material			Seal material		
	Brass	Steel	316 S.S	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)
Isopropyl alcohol	1	1	2	2	1	1
Isopropyl ether	1	1	1	2	3	3
Kerosene	1	1	1	1	3	1
Lard (animal fat)	1	1	1	1	2	1
Linseed oil	3	1	1	1	3	1
Lubricating oil SAE 10, 20, 30, 40,50	1	1	1	1	3	1
Magnesium salts	4	4	4	1	1	1
Magnesium sulphate	3	3	2	1	1	1
Mercury	3	3	1	1	1	1
Methane	1	3	1	1	3	1
Methanol	1	1	1	1	1	3
Methyl bromide	4	1	1	2	3	1
Methyl chloride (wet)	1	3	1	3	3	1
Methyl chloride (dry)	2	3	1	3	3	1
Methyl ether	4	4	4	1	3	1
Methyl ethyl ketone (MEK	1	1	1	3	1	3
Milk	2	1	1	1	1	1
Mineral oils	1	1	1	1	3	1
Monomethyl hydrazine	4	4	4	2	1	4
Naphtha (coal or petroleum)	2	1	2	2	3	1
Naphthalene	2	1	2	3	3	1
Naphthenic acid	2	1	2	2	3	1
Neatsfoot oil	4	4	4	1	2	1
Nickel acetate	3	2	1	2	1	3
Nickel chloride	3	3	2	1	1	1
Nickel salts	4	4	4	1	1	1
Nickel sulphate	3	3	1	1	1	1
Nitrogen	1	1	1	1	1	1
Nitrous oxide	2	2	2	1	4	4
Octyl alcohol	1	1	1	2	3	1
Olive oil	2	1	1	1	2	1
Ortho-dichlorobenzene	2	2	2	3	3	1
Oxalic acid	3	3	2	2	1	1
Oxygen (100-200°C)	1	1	1	3	3	2
Oxygen (cold)	1	1	1	2	1	1
Ozone	3	3	1	3	1	1
Palmitic acid	1	2	1	1	2	1
Para-dichlorobenzene	2	1	1	3	3	1
Peanut oil	2	1	1	1	3	1
Pentane (2-3 methyl & 2-4 dimethyl)	2	2	2	1	3	1
Perchloric acid - 2N	3	3	2	3	2	1
Perchloroethylene	3	2	2	2	3	1

Media	Body material			Seal material		
	Brass	Steel	316 S.S	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)
Petrolatum	1	1	1	1	3	1
Petroleum oil (below 120 °C)	1	1	1	1	3	1
Phenol	1	1	1	3	3	1
Phosphoric acid (3 molar)	3	3	2	1	1	1
Phosphoric acid (concentrated)	3	3	2	3	1	1
Phosphorous trichloride	3	3	1	3	1	1
Picric acid (molten)	3	3	2	2	2	1
Pine oil	2	2	1	1	3	1
Plating solutions (chrome)	1	3	1	4	1	1
Plating solutions (other)	4	1	1	1	1	1
Pneumatic service	1	1	1	1	1	1
Potassium acetate	2	1	2	2	1	3
Potassium chloride	3	3	1	1	1	1
Potassium cyanide	3	2	2	1	1	1
Potassium dichromate	3	1	2	1	1	1
Potassium hydroxide (50%)	3	2	1	2	1	3
Potassium nitrate	2	1	1	1	1	1
Potassium salts	4	4	4	1	1	1
Potassium sulphate	3	2	1	1	1	1
Producer gas	2	1	1	1	3	1
Propane	1	3	1	1	3	1
Propyl acetate	3	1	1	3	2	3
Propyl alcohol	1	1	1	1	1	1
Propylene	1	1	1	3	3	1
Pydraul 10E	3	1	1	3	1	3
Pydraul A-200 (C series)	3	1	1	3	3	1
Pydraul (3 series)	3	1	1	3	1	1
Pyrogard D	4	4	4	1	3	3
Sea water (salt water)	2	3	1	1	1	1
Shell irus 905	4	4	4	1	3	1
Silicone greases	1	1	1	1	1	1
Silver nitrate	3	3	1	2	1	1
Skydrol 500 (type 2)	3	1	1	3	1	3
Skydrol 7000 (type 2)	3	1	1	3	1	2
Soap solutions	3	3	1	1	1	1
Sodium acetate	1	1	1	2	1	3
Sodium bicarbonate	2	2	1	1	1	1
Sodium bisulphate or bisulphite	3	3	2	1	1	1
Sodium borate	3	2	2	1	1	1
Sodium carbonate	4	1	1	1	1	1
Sodium chloride	3	2	2	1	1	1
Sodium cyanide	3	1	1	1	1	4
Sodium hydroxide	3	2	1	2	1	2
Sodium hydroxide (50%)	3	3	1	2	1	2

Media	Body material			Seal material		
	Brass	Steel	316 S.S	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)
Sodium metaphosphate	2	1	2	1	1	1
Sodium nitrate	3	2	1	2	1	4
Sodium perborate	3	3	1	2	1	1
Sodium peroxide	3	1	2	2	1	1
Sodium phosphates	1	3	2	1	1	1
Sodium salts	4	4	4	1	1	1
Sodium sulphate	3	2	1	1	1	1
Sodium sulphite & sulphide	3	3	2	1	1	1
Sodium thiosulphate	3	3	1	2	1	1
Soybean oil	2	1	1	1	3	1
Stannous chloride (15 %)	3	3	2	1	1	1
Steam (below 200 °C)	1	3	1	3	1	3
Stoddard solvents	2	1	1	1	3	1
Sucrose solutions	1	1	1	1	1	1
Sulphur	2	1	1	3	1	1
Sulphur liquors	1	1	1	2	2	1
Sulphur (molten)	3	3	1	3	3	1
Sulphur dioxide (dry)	3	1	1	3	1	3
Sulphur trioxide (dry)	2	2	2	3	2	1
Sunsafe	3	1	1	1	3	1
Tannic acid (10%)	1	3	2	1	1	1
Tar (bituminous)	2	1	1	2	3	1
Tartaric acid	2	3	3	1	2	1
Terpineol	4	4	4	2	3	1
Tertiary butyl alcohol	1	1	1	2	2	1
Tetrachloroethane	4	2	1	3	3	1
Tetrachloroethylene	3	2	2	3	3	1
Tetraethyl lead	1	1	1	2	3	1
Tetraethyl lead (blend)	1	1	1	2	3	1
Titanium tetrachloride	2	1	2	2	3	1
Toluene	1	1	1	3	3	1
Transformer oil	1	1	1	1	3	1
Transmission fluid (type A)	1	1	1	1	3	1
Trichloroethane	4	2	1	3	3	1
Trichloroethylene	3	2	2	3	3	1
Tricresyl phosphate	4	1	2	3	1	2
Turbine oil #15 (MIL-L-7808A)	4	2	1	2	3	1
Turpentine	3	2	1	1	3	1
Water	1	3	1	1	1	2
Whiskey	1	3	1	1	1	1
Wine	1	3	1	1	1	1
Wood oil	4	2	1	1	3	1
Xylene	1	2	1	3	3	1
Zinc sulphate	3	3	2	1	1	1