

CHEMICAL COMPATIBILITY OF METRIC/IMPERIAL™ COMPRESSION FITTING

(General application)

R Resistant

N Not recommended

Figures below

Recommendation Maximum temperature admissible (°C)

Empty cell No data available



Dangerous for health



Flammable or explosive

CHEMICAL	RECOMMENDATION
Acetaldehyde	N
Acetamide	R 20
Acetic acid 5%	
Acetic acid 10%	R 20
Acetic acid 50%	N
Acetic acid 80%	N
Acetic acid - glacial	N
Acetic anhydride	N
Acetone	N
Acetaphenone	N
Acetyl chloride	N
Acrylonitrile	N
Adipic acid	R 20
Alcohol (See Ethyl alcohol)	R 20
Allyl alcohol	R 60
Allyl chloride	N
Alum(s) (See Potassium aluminium sulphate)	R 20
Aluminium chloride	R 40
Aluminium fluoride	R 20
Aluminium hydroxide	R 20

CHEMICAL	RECOMMENDATION
Aluminium nitrite	R 40
Aluminium oxalate	
Aluminium sulphate	R 60
Ammonia aqueous	R 20
Ammonia dry gas	R 20
Ammonia liquid	N
Ammonium carbonate	R 60
Ammonium chloride	R 20
Ammonium fluoride	R 20
Ammonium hydroxide (Ammonia aqueous)	R 20
Ammonium nitrate	R 20
Ammonium persulphate	R 20
Ammonium phosphate	R 20
Ammonium sulphate	R 40
Ammonium thiosulphate	
n-Amyl acetate	N
n-Amyl alcohol	R 60
n-Amyl chloride	N
Aniline	N
Antifreeze (See also Ethylene glycol)	

CHEMICAL	RECOMMENDATION
Antimony trichloride	N
Aqua regia ☠ (Nitro hydrochloric acid)	N
Arcton(s) (See Refrigerants)	
Aromatic hydrocarbons (See also Benzene, Toluene, Xylene, etc.)	N
Barium bromide ☠	
Barium carbonate	R 60
Barium chloride ☠	R 60
Barium hydroxide ☠	R 60
Barium sulphate	R 60
Battery acid ☠ (See also Sulphuric acid 35-40%)	N
Beer	R 20
Benzaldehyde 🔥	N
Benzene (Benzol) ☠ 🔥	N
Benzine (See Petrol)	
Benzoyl chloride ☠ 🔥	N
Benzyl chloride ☠ 🔥	N
Bleaching solution ☠ (12.5% active chlorine)	N
Borax (See Sodium tetraborate)	
Boric acid ☠	R 20
Brake fluid	R
Dot 3- 4	60
Brake fluid, silicone based Dot 5	
Brine (See also Sea water)	R 80
Bromine gaseous ☠	N
Bromine water ☠	N
Butane 🔥	R 20
Butoxyethanol ☠	

CHEMICAL	RECOMMENDATION
Butter; butter milk	R 20
n-Butyl acetate ☠ 🔥	N
n-Butyl alcohol ☠ 🔥 (Butanol)	R 20
Butyl phthalate	N
n-Butyric acid ☠	N
Calcium carbonate	R
Calcium chloride	R 20
Calcium hydroxide	R 40
Calcium nitrate	R 40
Calcium oxide	R
Calcium sulphate	R 40
Carbon dioxide, gaseous	R 40
Carbon disulphide ☠ 🔥	N
Carbon monoxide, gaseous ☠ 🔥	R 20
Carbon tetrachloride ☠ 🔥	N
Castor oil	R 60
Caustic potash (See Potassium hydroxide)	
Caustic soda (See Sodium hydroxide)	
Cellosolve (Glycol ethers) 🔥	
Cellosolve acetate ☠ 🔥	
Chloral hydrate ☠ 🔥	N
Chlorine gas (dry) ☠	N
Chlorine gas (wet) ☠	N
Chlorine liquid ☠	N
Chlorine water	N
Chlorobenzene ☠ 🔥	N
Chloroform ☠	N
Chlorosulphonic acid ☠	N

CHEMICAL	RECOMMENDATION
Chromic acid ☠	N
Cider	R 60
Citric acid	R 40
Coca-Cola	
Cooking salt (See Sodium chloride)	
Copper chloride(s) ☠	R 40
Copper nitrate	R 40
Copper sulphate	R 40
Corn oil	R 20
Cottonseed oil	R
Creosote	N
Cresol(s) ☠🔥	N
Cyclohexane 🔥	N
Cyclohexanol 🔥	N
Cyclohexanone 🔥	N
Decalin (Decahydronaphthalene)	N
Detergents	R 60
Developers, photographic	R 20
Dextrin	R 20
Dextrose (See also Glucose)	R 60
Di-iso-butyl ketone	N
Di-butyl phthalate	R 20
Di-octyl phthalate	N
Di-sodium tetraborate ☠ (See Borax)	
Dichlorobenzene ☠	N
Dichlorodifluoromethane	










CHEMICAL	RECOMMENDATION
Dichloroethane ☠🔥 (Ethylene dichloride)	N
Dichloroethylene ☠🔥	N
Dichloromethane ☠	
Dichloropropane ☠🔥	
Dichloropropene ☠🔥	
Diesel (fuel)	R 20
Diethanolamine	
Diethylamine ☠🔥	N
Diethyl ether ☠🔥	N
Dimethyl formamide ☠	N
Dimethylamine ☠	N
Dioxane ☠🔥 (Di-ethylene dioxide)	N
Drinking water (See Water, drinking)	
Emulsifiers, photographic	N
Ethyl acetate 🔥	N
Ethyl alcohol (Ethanol) 40%	R 20
Ethyl alcohol ☠🔥 96%	R 60
Ethyl chloride, ☠🔥 gaseous	N
Ethyl ether ☠🔥	N
Ethylene chloride 🔥	N
Ethylene glycol	R 20
Ethylene oxide, ☠🔥 gaseous	N
Ethylene oxide, ☠🔥 liquid	N
Fatty acids	N
Ferric chloride ☠	R 20
Ferric nitrate	R 20














CHEMICAL	RECOMMENDATION
Ferric sulphate	R 20
Ferrous chloride	R 20
Ferrous sulphate	R 20
Fertilisers	
Fixing solutions, photographic (See also Sodium thiosulphate)	R 40
Fluorine, gaseous ☠	N
Fluorosilicic acid	N
Flutec (See Refrigerants)	
Formalin ☠ (Formaldehyde 37-40% aqueous)	R 20
Formic acid 3%	N
Formic acid ☠ 50%	N
Formic acid ☠ 98%	N
Freon(s) ☠ (See also Refrigerants)	N
Fructose	
Furfural (Furfuraldehyde) 🔥	N
Furfuryl alcohol ☠	N
Gas, natural 🔥	R 20
Gasoline (See Petrol)	
Gelatin	R 40
Glucose	R 80
Glycerin (Glycerol) 🔥	R 60
Gypsum (See Plaster of Paris)	
n-Heptane 🔥	N
n-Hexane 🔥	N
Hydrazine ☠🔥	N
Hydrazine hydrate ☠🔥	N

CHEMICAL	RECOMMENDATION
Hydrochloric acid 10%	N
Hydrochloric acid ☠ 30%	N
Hydrochloric acid ☠ 37%	N
Hydrofluoric acid ☠ 40%	N
Hydrofluoric acid ☠ 60%	N
Hydrogen 🔥	R 20
Hydrogen chloride, ☠ gas	N
Hydrogen peroxide ☠ 3%	N
Hydrogen peroxide ☠ 30%	N
Hydrogen sulphide, ☠ aqueous	N
Hydrogen sulphide, ☠🔥 gaseous	R 20
Hypochlorous acid 8%	
Hypochlorous acid ☠ 14%	N 60
Ink(s)	R
Iodine, tincture of ☠	R 20
Iron salt(s)	R 60
Isceon(s) (See Refrigerants)	
Isooctane (Trimethyl pentane) 🔥	R 40
Isooctane/Toluene, 50/50 🔥	
Isopropyl alcohol 🔥	R 20
Kerosene 🔥	R 20
Lactic acid 10%	N
Lactic acid 75%	N
Lanolin (Wool fat)	R 20
Lead acetate	R 20
Lemon juice	

CHEMICAL	RECOMMENDATION
Lemonade	
Lime, chlorinated	R 20
Linseed oil	R 20
Lubricating oils	R 20
Magnesium carbonate	R 60
Magnesium chloride	R 60
Magnesium hydroxide	R 20
Magnesium nitrate	R 20
Magnesium sulphate	R 20
Maleic acid	N
Mercuric chloride ☠	R 20
Mercurous nitrate ☠	R 20
Mercury ☠	R 60
Mesityl oxide ☠	
Metallic soaps (See also Soaps)	
Methane 🔥	R 20
Methyl acetate 🔥	N
Methyl alcohol ☠🔥 (Methanol)	R 60
Methyl amine	N
Methyl isobutyl carbinol	
Methyl cellosolve ☠🔥 (Methoxy ethanol)	N
Methyl ethyl ketone ☠🔥	N
Methyl iso-butyl ketone ☠🔥	N
Methyl methacrylate ☠🔥	N
Methylene chloride ☠ (Di-chloromethane)	N
Milk	R 20

CHEMICAL	RECOMMENDATION
Mineral oil(s) ☠	R 20
Mixed acids	N
Molasses	R 60
MSG (Monosodium glutamate)	
Naphtha 🔥	N
Naphthalene ☠	N
Naphthols	N
Nickel chloride ☠	R 60
Nickel nitrate	R 60
Nickel sulphate	R 60
Nitric acid ☠ 10%	N
Nitric acid ☠ 40%	N
Nitric acid ☠ 50%	N
Nitric acid ☠ 70%	N
Nitric acid ☠ fuming	N
Nitrobenzene ☠	N
Nitrotoluene ☠	N
Nitrogen high pressure	R 80
Nitrogen oxides ☠	N
Nitrous gases, wet ☠	N
Oil (See Petroleum)	
Oleic acid	N
Oleum ☠ (H ₂ SO ₄ + SO ₃)	N
Olive oil	R 60
Orange juice	R 60
Oxalic acid	N

CHEMICAL	RECOMMENDATION
Oxygen atmospheric pressure	N
Oxygen  high pressure	N
Ozone	N
Palmitic acid	N
Paraffin fuel	R 40
Paraffin liquid (oil)	R 20
n-Pentane	N
Pepsi-Cola	
Perchloric acid 	N
Perfume	
Petrol (Also Gasoline, Benzine) 	R 20
Petroleum (Also Oil) 	R 40
Petroleum ether 	R 20
Petroleum jelly	
Phenol  	N
Phosphoric acid  85%	N
Phosphorous chloride(s) 	N
Phthalic acid	N
Plaster of Paris (See also Gypsum)	R 80
Plasticizers	
Polish	
Potable water (See Water, drinking)	
Potash (See Potassium carbonate)	
Potassium aluminum sulphates	R 20
Potassium bicarbonate	R 20
Potassium bichromate (See Potassium dichromate)	

CHEMICAL	RECOMMENDATION
Potassium bisulphate	
Potassium bromate	R 60
Potassium bromide	R 60
Potassium carbonate (Potash) 	R 40
Potassium chlorate	R 20
Potassium chloride	R 60
Potassium cyanide 	R 80
Potassium dichromate 	R 20
Potassium ferrocyanide	N
Potassium fluoride 	
Potassium hydroxide (Caustic Potash) 20%	N
Potassium hydroxide saturated 	N
Potassium iodate	R 20
Potassium iodide	R 20
Potassium metaborate	
Potassium nitrate   (Also Saltpetre)	R 60
Potassium permanganate 	R 20
Potassium persulphate	N
Potassium sulphate	R 60
Potassium sulphide  	R 20
Potassium thiocyanate	
Potassium thiosulphate	
Propane 	R 20
Propionic acid 	N
Propylene glycol	R 20
Pyridine 	N

CHEMICAL	RECOMMENDATION
Rectified spirit	
Refrigerant (Freons) 113	N
Refrigerant 12 ☠	R 20
Refrigerant 22 ☠	N
Refrigerant TF	N
Resorcinol	
Saltpetre (See Potassium nitrate)	
Sea water (See also Brine)	R 40
Silicic acid	
Silicone oil	R 60
Slaked lime	
Soaps	R 20
Soda water	
Sodium acetate	R 40
Sodium aluminate	R 20
Sodium benzoate	R 40
Sodium bicarbonate	R 60
Sodium bisulphate	R 20
Sodium bisulphite	N
Sodium bromate	R 20
Sodium bromide	R 20
Sodium carbonate (Soda)	R 60
Sodium chlorate ☠	R 20
Sodium chloride	R 60
Sodium chlorite ☠	N
Sodium cyanide ☠	R 20

CHEMICAL	RECOMMENDATION
Sodium dichromate ☠	
Sodium disulphite (Sodium bisulphate)	N
Sodium ferrocyanide	
Sodium fluoride ☠	R 40
Sodium hydroxide ☠ (Caustic soda) 20%	R 20
Sodium hydroxide ☠ saturated	N
Sodium hypochlorite <10%	N
Sodium hypochlorite ☠ 14%	N
Sodium iodide	R 40
Sodium metaborate	
Sodium metaphosphate ☠	R 20
Sodium nitrate	R 60
Sodium nitrite	R 20
Sodium phosphate(s) ☠	R 60
Sodium silicate (Water glass)	R 60
Sodium sulphate	R 20
Sodium sulphide 🔥	R 60
Sodium tetraborate (Borax) ☠	R 60
Sodium thiosulphate (Fixing solution)	R 20
Softener(s) (See also Dibutylphthalate, Dioctylphthalate, Tricresylphosphate)	
Spindle oil	R 20
Stannic sulphate	
Stannous chloride	R 40
Starch	R 60
Steam	

CHEMICAL	RECOMMENDATION
Stearic acid	R 20
Stoddard solvent (See also White spirit)	N
Sugar syrup	R 20
Sulphamic acid	
Sulphur colloid	N
Sulphur dioxide ☠ gas (dry)	N
Sulphur dioxide ☠ gas (wet)	N
Sulphur dioxide ☠ liquid	N
Sulphuric acid ☠ 10%	N
Sulphuric acid ☠ 30%	N
Sulphuric acid ☠ 50%	N
Sulphuric acid ☠ 70%	N
Sulphuric acid ☠ 90%	N
Sulphuric acid ☠ 98%	N
Surfactants ☠ (See also Wetting agents)	
Tannic acid	R 20
Tanning liquors ☠	N
Tartaric acid	R 40
Tetrachloroethane ☠	N
Tetrachloroethylene ☠ (Perchloroethylene)	N
Tetrahydrofuran ☠🔥	N
Tetralin ☠ (Tetrahydronaphthalene)	N
Thionyl chloride ☠	N
Toluene ☠🔥	N
Tomato juice	R 20
Transformer oil	R 20
Trichlorobenzene(s) ☠	
Trichloroethylene ☠	N

CHEMICAL	RECOMMENDATION
Tricresyl phosphate ☠	N
Turpentine 🔥	N
Urea ☠	R 20
Uric acid	R 20
Vaseline	
Vegetable oil (See also Corn oil, Cottonseed oil)	
Vinegar ☠	N
Vinyl acetate ☠🔥	N 40
Vinyl chloride 🔥	N
Water, acid, mine	R 20
Water, distilled (Also Deionised)	R 80
Water, drinking	R 60
Water, drinking chlorinated (Chlorine < 2 ppm)	R 20
Water-glass (See Sodium silicate)	
Wetting agents (See also Surfactants)	
White spirit ☠🔥	N
Xylene (Xylol) ☠🔥	N
Yeast	R 40
Zinc bromide	
Zinc carbonate	
Zinc chloride ☠	R 20
Zinc nitrate	
Zinc oxide ☠	
Zinc phosphate(s)	
Zinc sulphate	

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