

Chemical resistance guide for liquidtight fitting

This document serves as a guideline only and compatibility should be verified in the application environment to ensure suitability. Many factors can determine the exact suitability; such as temperature, duration of contact, nature of contact such as submersion and concentration of the chemicals involved.

See chemical resistance guide GM7636 for T&B Liquidtight Flexible Metallic Conduit.

Resistance guide															
Chemicals	Metals										Plastics & Elastomers				
	Aluminum	Carbon Steel	Cast/Ductile Iron	Nickel Plated Brass	303/304 Stainless Steel 1.4301 (V2A)	316 Stainless Steel 1.4401 (V4A)	PA6 PA66 Polyamide	POM Polyacetal	PVC Polyvinylchloride	TPE-U/TPE-E Polyester	PP Polypropylene	EPR, EPDM	NBR Nitrile	CR Polychloroprene	TPU Polyurethane
3 = Excellent															
2 = Good															
1 = Fair to poor															
0 = Not recommended															
- = No data															
Acetate Solvents	2	0	0	3	0	3	3	3	0	0	0	2	0	0	0
Acetic Acid	2	0	0	3	0	2	0	0	3	0	2	3	1	1	1
Acetic Acid — 20%	2	0	0	3	2	3	0	1	3	0	2	3	1	2	-
Acetic Acid — 30%	0	-	3	3	3	3	0	2	-	0	2	3	1	2	-
Acetic Acid — 50%	0	-	3	3	3	2	0	2	-	1	2	3	0	1	-
Acetic Acid — 80%	2	0	0	3	0	2	0	0	-	1	3	3	0	1	-
Acetic Acid — Glacial	2	0	0	2	1	3	0	0	3	1	1	2	0	0	-
Acetone	2	3	3	3	3	3	2	2	0	1	0	3	0	0	0
Acetone Cyanohydrin	2	-	2	3	2	-	-	-	-	-	-	0	-	2	-
Acetonitrile (Methyl Cyanide)	3	3	3	3	3	3	3	3	0	-	0	3	0	0	2
Acetophenone	2	3	3	3	3	2	3	-	-	-	1	2	0	0	-
Acrylonitrile	2	3	3	3	3	3	2	-	3	0	2	0	0	0	0
Adipic Acid	2	3	2	3	2	2	3	2	3	0	2	3	3	0	-
Alcohol	3	3	3	3	3	3	0	2	3	2	2	2	-	-	-
Alcohol: Amyl	2	2	2	3	3	3	3	3	3	3	2	3	2	2	0
Alcohol: Benzyl	2	2	2	3	2	2	0	3	3	0	3	1	0	1	1
Alcohol: Butyl	2	2	2	3	3	3	0	3	3	0	2	3	3	3	0
Alcohol: Diacetone	2	3	2	3	3	3	3	3	2	0	2	2	0	0	2
Alcohol: Ethyl	2	2	2	3	3	3	2	3	3	3	3	3	3	3	0
Alcohol: Hexyl	3	3	3	3	3	3	3	3	3	0	3	1	3	2	0
Alcohol: Isobutyl	2	1	1	3	3	3	2	3	3	2	3	2	1	3	0
Alcohol: Isopropyl	2	3	1	3	2	2	0	3	3	3	3	2	1	2	0
Alcohol: Methyl	2	3	3	3	3	3	2	3	3	2	3	2	3	3	0
Alcohol: Octyl	3	3	3	3	3	3	3	3	3	0	-	3	2	2	0
Alcohol: Propyl	3	3	3	3	3	3	2	3	3	0	3	2	3	3	0
Aluminum Chloride	0	0	0	0	0	1	0	2	3	1	3	3	3	3	2
Ammonia 10%	3	3	3	3	3	3	3	0	3	-	3	3	-	3	-
Ammonia Anhydrous	3	3	3	3	3	3	2	0	3	0	3	3	-	2	-
Ammonia Liquids	0	-	3	3	3	-	-	0	0	-	3	3	2	3	2

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Ammonia Liquors	3	-	3	3	3	-	-	-	0	-	-	-	3	-	
Aniline	1	1	1	3	3	2	1	2	2	0	1	0	0	0	
ASTM no.1	3	-	3	3	3	-	-	3	3	3	-	0	3	2	
ASTM no.2	3	-	3	3	3	-	-	3	2	3	-	0	3	2	
ASTM no.3	3	-	3	3	3	-	-	3	-	3	-	0	3	1	
ASTM no.4	3	-	3	3	3	-	-	3	-	0	-	0	2	0	
ASTM no.5	3	-	3	3	3	-	-	-	-	3	-	0	3	2	
ASTM no.6	3	-	3	3	3	-	-	-	-	3	-	0	0	0	
ASTM no.7	3	-	3	3	3	-	-	-	-	3	-	0	2	0	
Benzaldehyde	2	3	3	3	2	2	0	3	-	2	0	2	0	0	
Benzene	2	3	2	3	2	2	3	3	2	1	0	0	0	0	
Blood	-	-	-	3	3	3	-	-	3	-	3	-	-	-	
Brake Fluid (Mineral)	3	3	3	3	3	3	2	3	0	0	0	3	1	2	
Carbon Tetrachloride	0	0	0	3	2	2	0	2	0	0	0	0	1	0	
Caustic	0	-	-	3	3	3	-	-	-	0	-	-	-	-	
Chlorinated Water	0	-	-	3	2	2	0	0	0	0	1	0	1	0	
Chlorine Water	0	-	-	3	1	1	1	0	0	-	0	1	-	0	
Chloroform	0	2	0	3	3	3	0	2	0	0	0	0	0	0	
Citric Acid	1	0	0	3	2	3	0	2	3	3	2	3	-	3	
Copper Sulfate	-	-	-	3	3	3	1	3	3	2	3	3	-	3	
Creosols	2	-	1	3	3	-	-	2	2	-	0	0	0	0	
Cresols	2	1	1	3	3	3	0	0	3	0	0	0	-	0	
Crude Oil	3	-	2	3	3	3	3	0	-	2	0	0	2	1	
Diesel Fuel	3	3	3	3	3	3	3	3	2	2	2	0	-	0	
Diethylamine	2	2	0	3	2	2	2	2	-	-	1	2	-	2	
Dyes	2	-	2	3	3	3	3	1	-	-	-	-	-	1	
Ethane	3	3	3	3	3	3	0	3	-	0	0	3	1	2	
Ethanol (Ethyl Alcohol)	2	2	2	3	3	3	1	3	-	3	3	3	3	3	
Ethanolamine	2	3	2	3	3	3	3	0	-	-	0	2	2	1	
Ether	2	1	1	3	3	3	3	3	-	0	1	-	0	-	
Ethyl Ether	1	1	1	2	2	2	2	2	0	-	0	0	0	0	
Ethyl Formate	1	-	3	2	2	2	-	3	0	0	-	1	0	2	
Ethylene Glycol	2	2	2	3	2	2	2	2	3	1	3	3	3	3	
Freon 32	0	3	3	3	3	3	-	3	-	-	-	3	3	3	
Gasoline	3	3	3	3	3	3	-	3	2	3	0	0	3	0	
Gelatin	2	3	0	3	3	3	2	2	-	2	3	3	3	3	
Glycol	2	-	2	2	2	2	1	2	-	3	3	-	3	-	
Grapefruit Oil	-	0	0	3	3	3	-	-	3	-	-	-	3	0	
Grease	3	3	3	3	3	3	-	0	3	-	-	0	-	0	
Heavy Water	3	-	1	2	3	-	-	-	-	2	-	3	3	-	
Hexane	3	3	3	3	3	3	2	1	2	3	1	0	3	0	
Hexanol	3	-	3	3	3	-	-	3	-	0	3	3	3	2	
Hexanol Tertiary	3	3	3	3	3	3	3	3	-	-	2	-	-	-	
Hexyl Alcohol	3	-	-	2	3	-	-	-	-	-	3	-	-	2	
Hexyl Alcohol	3	-	3	2	3	-	-	-	-	0	-	1	2	2	
Hexylene Glycol (Brake Fluid)	3	-	3	2	3	-	-	-	-	0	-	1	3	3	

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Hydraulic Oil (Petro)	3	3	3	3	3	3	3	2	-	0	0	-	3	-	
Hydraulic Oil (Petroleum Base)	3	3	3	3	3	3	3	1	3	0	0	-	2	-	
Hydraulic Oil (Petroleum)	3	-	3	3	3	3	3	2	3	0	0	3	2	-	
Hydraulic Oil (Synthetic)	3	3	3	3	3	3	3	2	3	0	0	0	0	2	
Hydrazine	2	0	0	3	3	3	-	2	-	0	0	3	2	1	0
Hydrochloric Acid - 10%	0	0	0	3	0	0	0	0	3	0	3	3	-	0	-
Hydrochloric Acid - 37%	0	0	0	3	0	0	0	0	3	0	1	1	2	0	0
Hydrogen Peroxide - 30%	3	2	0	3	2	2	0	0	3	0	2	2	-	0	-
Hydrogen Peroxide - 90%	3	-	0	2	3	-	0	0	3	0	3	1	-	0	-
Isopropyl Alcohol	3	3	3	3	3	3	0	3	-	3	3	2	3	2	0
Isopropyl Amine	-	-	3	3	3	-	-	-	-	-	-	0	-	-	-
Isopropyl Chloride	0	-	3	3	3	3	-	3	-	-	0	0	0	0	0
Isopropyl Ether	2	3	3	3	3	3	3	0	-	-	0	0	2	0	2
Jet Fuel (JP1 to JP6)	3	3	3	3	3	3	1	3	-	-	0	0	-	0	-
Kerosene	3	3	3	3	3	3	3	3	3	1	0	0	3	0	2
Ketchup	-	-	-	3	3	3	3	3	3	-	-	3	-	3	-
Ketones	2	3	3	3	3	3	3	0	0	0	0	3	0	0	0
Lacquers	3	1	1	2	3	3	3	0	0	0	0	0	0	0	0
Lactic Acid	0	0	0	3	2	2	0	1	-	0	2	3	-	1	-
Lactic Acid - 5% Solution	1	-	0	3	3	-	-	3	-	0	3	3	3	3	2
Lard	3	3	3	3	2	3	3	2	-	2	2	0	-	0	-
Lard Oil (Cold)	3	3	3	3	3	3	-	3	-	-	-	0	-	2	-
Lard Oil (Hot)	3	3	3	3	3	3	-	3	-	2	2	0	3	2	1
Latex	3	-	-	3	3	3	3	1	-	-	3	3	3	2	0
Lubricants	3	3	3	3	3	3	3	3	3	3	2	0	-	0	-
Lubricants (Petroleum)	1	-	3	3	3	3	3	3	3	3	0	0	3	2	2
Lubricating Oil	3	3	3	3	3	3	3	3	3	3	3	0	-	2	-
Methanol	2	3	3	3	3	3	2	3	-	2	3	3	3	3	0
Methyl Acetate	2	2	2	2	3	2	3	2	0	1	0	1	0	0	0
Methyl Acetone	3	3	3	2	3	3	3	0	-	0	3	1	0	-	-
Methyl Bromide	0	3	3	3	3	3	0	0	0	0	0	0	2	0	0
Methyl Ethyl Ketone (MEK)	2	3	3	3	3	3	1	1	0	2	0	3	0	0	0
Methyl Formate	3	-	2	2	2	2	-	3	-	-	-	1	0	2	0
Nitric Acid - 10%	0	0	0	1	3	3	0	0	3	0	0	2	-	2	-
Nitric Acid - 70%	3	-	0	1	3	3	0	0	0	0	0	0	-	0	-
Olive Oil	3	3	3	3	2	3	3	3	-	3	0	3	0	3	3
Ozone	2	0	1	3	2	2	0	0	-	1	0	3	0	1	3
Paint Thinner, Duco	0	2	2	3	2	3	3	3	0	-	0	0	0	0	0
Paraffin	3	3	3	3	3	3	3	3	3	-	3	0	3	2	3
Petroleum	0	-	1	3	3	3	3	2	2	2	2	0	-	2	-
Petroleum Ether	2	-	2	3	3	3	3	3	2	-	3	0	3	0	2
Phenol	2	-	0	3	3	-	-	3	2	0	1	-	0	0	0
Phenol (10%)	3	0	0	3	2	2	0	2	2	-	2	2	-	0	-
Phosphoric Acid - 10%	0	-	0	3	3	-	0	-	3	-	3	3	-	2	-
Phosphoric Acid - 20%	0	-	0	3	3	2	0	0	3	-	3	3	2	2	1
Salt Brine	1	0	0	1	2	0	3	2	2	3	3	3	-	3	-

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Salt Water	0	0	0	1	1	2	3	3	2	3	3	3	2	0	
Sea Water	0	0	0	1	1	1	3	3	3	3	3	3	2	3	
Sea Water (Brine)	3	-	1	1	3	-	3	3	3	-	3	3	2	-	
Sewage	0	0	0	2	3	3	-	3	-	2	3	1	2	0	
Silicone	2	3	3	3	3	3	3	3	3	3	3	-	3	-	
Silicone Grease	-	-	-	3	-	-	-	3	-	3	-	3	3	3	
Silicone Oil	2	3	2	3	3	3	3	3	2	3	3	3	0	3	
Silver Nitrate	0	1	0	3	2	2	3	3	0	2	3	2	3	3	
Skydol 7000	-	-	-	3	3	-	-	3	0	-	3	0	0	0	
Skydrol	-	-	-	3	-	-	1	-	2	-	3	-	0	-	
Skydrol 500	-	-	-	3	3	-	1	3	1	-	3	0	0	0	
Skydrol Hydraulic Fluid	-	-	-	3	3	-	1	-	-	-	3	-	0	-	
Sodium Chloride	1	0	0	1	1	1	3	2	3	3	3	3	3	3	
Sodium Hydroxide	0	-	2	3	3	-	1	0	2	-	3	3	2	-	
Sodium Hydroxide (< 10%) (Caustic Soda)	-	-	-	3	-	-	-	-	3	-	-	-	-	-	
Sodium Hydroxide (< 50%) (Caustic Soda)	-	-	-	3	-	-	-	-	3	-	-	-	-	-	
Sodium Hydroxide (20%)	0	3	2	3	2	2	3	3	2	3	2	3	2	2	
Sodium Hydroxide (50%)	0	0	0	3	2	2	3	3	3	1	3	2	0	1	
Sulfur Dioxide	0	-	0	0	0	3	1	0	0	0	3	2	0	1	
Sulfur Dioxide (dry)	2	3	3	0	0	3	2	2	3	1	3	3	-	-	
Sulfur Dioxide Gas Dry	0	-	2	0	3	3	2	2	3	0	1	3	-	-	
Sulfuric Acid - Concentrated	-	-	-	0	-	-	0	0	0	0	2	0	-	-	
Sulfuric Acid (<10%)	0	1	0	0	0	1	1	0	2	3	3	3	0	0	
Sulfuric Acid (10-75%)	0	0	0	0	0	0	0	0	1	-	3	2	-	-	
Sulfuric Acid (75-100%)	0	0	0	0	1	0	0	-	0	1	1	2	-	-	
Sulfuric Acid (hot concentrated)	0	0	0	0	0	1	0	-	0	-	0	0	-	-	
Syrup	3	-	-	3	3	3	-	3	3	-	3	3	2	-	
Toluene	3	-	3	3	-	3	3	-	0	-	0	-	0	-	
Transformer Oil	3	-	2	3	3	3	3	1	-	-	0	0	3	1	
Trichlorethylene	0	-	1	3	-	3	3	-	0	-	2	-	0	-	
Turbine Oil	3	3	3	3	3	3	3	3	-	-	2	0	2	0	
Turpentine	3	-	2	3	3	3	2	3	2	2	0	0	3	0	
Unleaded Gasoline	3	-	3	3	-	3	3	-	-	-	0	-	0	-	
Urea	2	-	2	2	2	2	1	3	3	2	3	3	2	2	
Urine	2	3	2	3	3	3	2	1	-	-	3	3	0	-	
Vegetable Oil	2	2	2	3	3	3	3	3	-	-	0	0	3	0	
Vinyl Acetate	2	2	1	3	2	2	-	-	0	-	0	2	0	0	
Water	3	0	0	3	3	3	-	3	3	3	2	3	-	-	
White Spirit	-	-	-	3	-	3	3	3	3	3	-	-	-	-	
Zinc Chloride	0	0	0	3	0	0	1	0	3	2	3	3	2	3	