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CORROSION GUIDE OF EPOXY

Epoxy (polyepoxide) is an epoxide polymer that cures when mixed with a catalysing agent or "hardener". Epoxy resins have an excellent electrical, thermal, and chemical resistance. It is common to increase the strength of epoxy with fibrous reinforcement or mineral fillers. The variety of combinations of epoxy resins and reinforcements provides a wide latitude in properties obtainable in moulded parts.

The table below can be used as an indication of epoxy resistance to chemical compounds. Always check the chemical resistance with the epoxy manufacturer.

Chemical Product	**Epoxy Resistance to Chemical Product**				
	N/R	**Fair**	**Good**	**Excellent**	**Max Temperature**
Acetic Acid (20%)				x	-
Acetone	x				-
Acetylene				x	-
Alcohol - Ethyl				x	50°C
Alcohol - Isopropyl				x	-
Alcohol - Methyl			x		22°C
Aluminum Chloride				x	22°C
Aluminum Fluoride			x		22°C
Aluminum Hydroxide			x		22°C
Aluminum Sulfate				x	22°C
Amines				x	22°C
Ammonia - Liquid				x	22°C
Ammonia 10%				x	22°C
Ammonium Carbonate				x	22°C
Ammonium Chloride				x	22°C
Ammonium Hydroxide				x	22°C
Ammonium Nitrate				x	22°C
Ammonium Phosphate				x	22°C
Ammonium Sulfate				x	22°C

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Amyl acetate				x	22°C
Aniline		x			22°C
Barium Carbonate				x	22°C
Barium Chloride				x	22°C
Barium Hydroxide				x	22°C
Barium Sulfate		x			22°C
Barium Sulfide			x		22°C
Beer				x	22°C
Benzol				x	22°C
Borax				x	22°C
Boric acid				x	22°C
Bromine	x				22°C
Butadiene gas				x	22°C
Butane gas				x	22°C
Butyl acetate			x		22°C
Butaric Acid		x			22°C
Calcium Bisulfite				x	22°C
Calcium Carbonate				x	22°C
Calcium Chloride				x	22°C
Calcium Hydroxide				x	22°C
Calcium Hypochlorite				x	22°C
Calcium Sulfate				x	22°C
Carbon dioxide gas				x	22°C
Carbon Tetrachloride				x	22°C
Carbonic Acid			x		22°C
Citric Acid				x	22°C
Copper Chloride				x	-
Copper Nitrate				x	22°C
Dichloroethane			x		22°C
Diesel Fuel				x	22°C
Ethyl acetate		x			22°C
Ethyl chloride				x	22°C
Ethylene glycol		x			22°C
Fatty Acids				x	22°C

Ferric Chloride				x	22°C
Ferric Sulfate				x	22°C
Ferrous Chloride				x	22°C
Ferrous Sulfate				x	22°C
Fluorine gas	x				-
Fluosilicic acid		x			-
Formaldehyde, 40%				x	22°C
Formic Acid		x			22°C
R-12 dichlorodifluoromethane				x	-
Gasoline				x	-
Glucose			x		-
Glycerine				x	-
Heptane				x	-
Hexane			x		-
Hydraulic Fluid				x	-
Hydrobromic Acid, 100%	x				-
Hydrochloric acid, 20%			x		22°C
Hydrocyanic Acid				x	-
Hydrofluoric Acid, 75%			x		22°C
Hydrogen Peroxide, 10%		x			22°C
Hydrogen Sulfide				x	-
Jet Fuel				x	-
Kerosene				x	-
Lactic Acid			x		22°C
Lead acetate				x	-
Magnesium Carbonate				x	-
Magnesium Chloride				x	-
Magnesium Hydroxide				x	-
Magnesium Nitrate				x	-
Magnesium Sulfate				x	-
Maleic Acid				x	-
Mercury				x	-
Methyl Ethyl Ketone		x			22°C
Naphtha				x	-

Naphthalene				x	-
Nickel Chloride				x	-
Nickel Sulfate				x	-
Nitric Acid	x				-
Oil - Castor				x	-
Oleic acid				x	-
Oxalic Acid				x	-
Phenol			x		-
Phosphoric Acid			x		-
Picric Acid				x	-
Potassium Bicarbonate				x	-
Potassium Bromide				x	-
Potassium Carbonate				x	-
Potassium Chloride				x	-
Potassium Dichromate		x			-
Potassium Hydroxide				x	-
Potassium Nitrate				x	-
Potassium Sulfate				x	-
Propane, liquid				x	-
Silver Nitrate				x	-
Soaps				x	-
Sodium Acetate				x	-
Sodium Bicarbonate				x	-
Sodium Bisulfate				x	-
Sodium Carbonate		x			22°C
Sodium Chlorate				x	-
Sodium Chloride				x	-
Sodium Cyanide				x	-
Sodium Fluoride				x	-
Sodium Hydroxide, 50%			x		22°C
Sodium Hypochlorite, 100%	x				-
Sodium Nitrate				x	-
Sodium Silicate				x	-
Sodium Sulfate				x	-

Sodium Sulfite				x	-
Sodium Thiosulfate				x	-
Stannic Chloride				x	-
Stearic Acid			x		-
Sulfuric Acid, 75-100%		x			22°C
Sulfur Dioxide				x	22°C
Tannic Acid				x	-
Tartaric Acid				x	-
Toluene			x		22°C
Turpentine			x		-
Urine				x	-
Vinegar				x	-
Water - Distilled				x	-
Water - Fresh				x	-
Water - Sea, Salt				x	-
Xylene				x	-
Zinc Chloride				x	-

Source: https://www.engineeringtoolbox.com/chemical-resistance-epoxy-d_786.html