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Chemical Compatibility Guide

Syntho-Steel™ Epoxy Putty

This listing was prepared to provide guidance to the chemical compatibility of TVI Syntho-Steel™ epoxy putty.

Notice

This data is a compilation of existing data obtained from an independent source and does not represent actual testing conducted by Thermoplastic Valves, Inc. This report is offered as a guide and was developed from information which, to the best of TVI knowledge, was reliable and accurate. Due to variables and conditions of application beyond TVI control, none of the data shown in this guide is to be construed as a guarantee, expressed, or implied. The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

RATINGS – CHEMICAL EFFECT

A	-	No Effect – Excellent
B	-	Minor Effect – Good
C	-	Moderate Effect – Fair
D	-	Severe Effect – Not Recommended

EXPLANATION OF FOOTNOTES

1	-	Satisfactory to 72°F
2	-	Satisfactory to 120°F

Thermoplastic Valves, Inc. assumes no responsibility for injury to vendor or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the Material Safety Data Sheet and the Chemical Compatibility Guide. Additionally, Thermoplastic Valves, Inc. assumes no responsibility for injury to vendor or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendor assumes the risk in his use of the material.

Chemical Compatibility Chart **Syntho-Steel™** Epoxy Putty

ACETALDEHYDE	A	ANTI-FREEZE	A
ACETAMIDE	A	AQUA REGIA (80%HCL, 20%HNO3)	D
ACETATE SOLVENT	A	AROCHLOR 1248	A1
ACETIC ACID, GLACIAL	B	AROMATIC HYDROCARBONS	A
ACETIC ACID 20%	A	ARSENIC ACID	A1
ACETIC ACID 80%	C	ASPHALT	A
ACETIC ACID	C	BARIUM CARBONATE	A1
ACETIC ANHYDRIDE	A	BARIUM CHLORIDE	A1
ACETONE	D	BARIUM CYANIDE	A
ACETYL CHLORIDE (DRY)	A	BARIUM HYDROXIDE	A1
ACETYLENE	A	BARIUM NITRATE	A1
ACRYLONITRILE	A	BARIUM SULFATE	C1
ALCOHOLS AMYL	D	BARIUM SULFIDE	B1
BENZYL	A1	BEER	A1
BUTYL	A	BEET SUGAR LIQUIDS	A1
DIACETONE	A	BELZALDEHYDE	A1
ETHYL	A2	BENZOIC ACID	A1
HEXYL	A	BENZOL	A1
ISOBUTYL	A	BORAX (SODIUM BORATE)	A1
ISOPROPYL	A	BORIC ACID	A1
METHYL	B1	BREWERY SLOP	A
OCTYL	A	BROMINE	D
PROPYL	A	BUTADIENE	A1
ALUMINUM CHLORIDE 20%	A1	BUTANE	A1
ALUMINUM CHLORIDE	A1	BUTANOL (BUTYL ALCOHOL)	D
ALUMINUM FLOURIDE	B1	BUTTER	A
ALUMINUM HYDROXIDE	B1	BUTTERMILK	A1
ALUMINUM POTASSIUM SULFATE 10%	A1	BUTYLENE	A1
ALUMINUM POTASSIUM SULFATE 100%	A1	BUTYLACETATE	B1
ALUMINUM SULFATE	A1	BUTARIC ACID	C1
AMINES	A1	CALCIUM BISULFATE	A
AMMONIA 10%	A1	CALCIUM BISULFIDE	A
AMMONIA, ANHYDROUS	A	CALCIUM BISULFITE	A1
AMMONIA, LIQUID	A1	CALCIUM CARBONATE	A1
AMMONIA NITRATE	A	CALCIUM CHLORIDE	A1
AMMONIUM BIFLOURIDE	A1	CALCIUM HYDROXIDE	A1
AMMONIUM CARBONATE	A1	CALCIUM HYPOCHLORITE	A1
AMMONIUM CASENITE	A	CALCIUM SULFATE	A1
AMMONIUM CHLORIDE	A1	CALGON	A
AMMONIUM HYDROXIDE	A1	CANE JUICE	A
AMMONIUM NITRATE	A1	CARBOLIC ACID (SEE PHENOL)	C1
AMMONIUM OXALATE	A	CARBON BISULFIDE	A
AMMONIUM PERSULFATE	A1	CARBON DIOXIDE	A1
AMMONIUM PHOSPHATE, DIABASIC	A1	CARBON DIOXIDE (DRY)	A1
AMMONIUM PHOSPHATE, MONOBASIC	A	CARBON DIOXIDE (WET)	A1
AMMONIUM PHOSPHATE, TRIBASIC	A	CARBON DISULFIDE	C1
AMMONIUM SULFATE	A1	CARBON MONOXIDE	A1
AMMONIUM THIOSULFATE	A	CARBON TETRACHLORIDE	A1
AMYL ACETATE	A1	CARBONATED WATER	A
AMYL ALCOHOL	D	CARBONIC ACID	B1
AMYL CHLORIDE	A1	CATSUP	A
ANILINE		CHLORACETIC ACID	C1
		CHLORINATED GLUE	A

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CHLORINE, ANHYDROUS LIQUID	C1	FORMIC ACID	C1
CHLORINE WATER	A1	FREON 11	A
CHLOROBENZENE (MONO)	C1	FREON 12	A
CHLOROFORM	C1	FREON 22	A
CHLOROSULFONIC	C1	FREON 113	A
CHOCOLATE SYRUP	A	FREON TF	A
CHROMIC ACID 5%	B1	FRUIT JUICE	A
CHROMIC ACID 10%	C1	FUEL OILS	A1
CHROMIC ACID 30%	C1	FURAN RESIN	A1
CHROMIC ACID 50%	D	FURFURAL	A1
CIDER	A	GASOLINE	A
CITRIC ACID	A1	GELATIN	B
CITRIC OILS	A	GLUCOSE	B
CHLOROX (BLEACH)	A	GLUE, P.V.A.	A
COFFEE	A	GLYCERIN	A
COPPER CHLORIDE	A	GLYCOLIC ACID	A
COPPER CYANIDE	B1	GOLD MONOCYANIDE	A
COPPER FLUOBORATE	A	GRAPE JUICE	A
COPPER NITRATE	A1	GREASE	A
COPPER SULFATE 5%	A1	HEPTANE	A
COPPER SULFATE >5%	A1	HEXANE	B
CREAM	A	HONEY	A
CRESOLS	A1	HYDRAULIC OIL (PETRO)	A
CRESYLIC ACID	A1	HYDRAULIC OIL (SYNTHETIC)	A
CYANIC	A1	HYDRAZINE	A
CYCLOHEXANE	A1	HYDROBROMIC ACID 20%	B1
DETERGENTS	A1	HYDROBROMIC ACID 100%	D
DICHLORETHANE	B2	HYDROCHLORIC ACID, DRY GAS	A
DIESEL FUEL	A1	HYDROCHLORIC ACID 20%	A1
DIETHYLAMINE	A	HYDROCHLORIC ACID 37%	A
DIETHYLENE GLYCOL	C	HYDROCYANIC ACID	A
DIPHENYL OXIDE	A	HYDROFLUORIC ACID 20%	A
DYES	A	HYDROFLUORIC ACID 50%	C2
EPSOM SALTS (MAGNESIUM SULFATE)	A	HYDROFLUORIC ACID 75%	B1
ETHANE	A1	HYDROFLUOSITICIC ACID 20%	C1
ETHANOLAMINE	A1	HYDROFLUOSITICIC ACID 100%	C1
ETHER	A1	HYDROGEN PEROXIDE 10%	C1
EHTYL ACETATE	C1	HYDROGEN PEROXIDE 30%	B
ETHYL CHLORIDE	A1	HYDROGEN PEROXIDE 100%	A
ETHYL SULFATE	A1	HYDROGEN SULFIDE (AQUA)	A
ETHYLENE CHLORIDE	B1	HYDROGEN SULFIDE (DRY)	A
ETHYLENE DICHLORIDE	C1	HYDROXY ACETIC ACID 70%	A
ETHYLENE GLYCOL	C1	INK	A
EHTYLENE OXIDE	A1	IODINE	C
FATTY ACIDS	A1	ISOTANE	A
FERRIC CHLORIDE	A1	ISOPROPYL ACETATE	A
FERRIC NITRATE	A1	ISOPROPYL ETHER	D
FERRIC SULFATE	A1	JET FUEL (JP3, -4, -5)	A
FERROUS CHLORIDE	A1	KEROSENE	A
FERROUS SULFATE	A1	KETONES	C
FLUOBORIC ACID	A	LACQUERS	A
FLUORINE	D	LACQUER THINNERS	A
FLUOSILICIC ACID	C	LACTIC ACID	B1
FORMALDEHYDE 40%	A1	LARD	B
FORMALDEHYDE 100%	A	LATEX	A
		LEAD ACETATE	A

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LEAD SULFAMATE	A	OILS: ANALINE (CONT..)	
LIGROIN	A	COD LIVER	A
LIME	A	CORN	A
LUBRICANTS	A	COTTON SEED	A1
MAGNESIUM CARBONATE	A	CREOSOTE	A1
MAGNESIUM CHLORIDE	A	DIESEL FUEL (20, 30, 40, 50)	A1
MAGNESIUM HYDROXIDE	A	FUEL (1,2,3,5A,5B,6)	A1
MAGNESIUM NITRATE	A	GINGER	A
MAGNESIUM OXIDE	A	HYDRAULIC (SEE HYDRAULIC)	
MAGNESIUM SULFATE	A	LEMON	A
MALEIC ACID	A	LINSEED	A
MALEIC ANHYDRIDE	A	MINERAL	A
MASH	A	OLIVE	A
MAYONAISE	A	ORANGE	A
MELAMINE	A	PALM	A
MERCURIC CHLORIDE (DILUTE)	A	PEANUT	A
MERCURIC CYANIDE	A	PEPPERMINT	A
MERCURY	A	PINE	A
METHANOL (METHYL ALCOHOL)	B1	RAPESEED	A
METHYL ACETATE	D	ROVIN	A
METHYL ACRYLATE	A	SESAME SEED	A
METHYL ACETONE	C	SILICONE	A
METHYL ALCOHOL 10%	B1	SOYBEAN	A
METHYL BROMIDE	B	SPERM	A
METHYL BUTYL KETONE	C	TANNING	A
METHYL CELLOSOLVE	C	TURBINE	A
METHYL CHLORIDE	A	OLEIC ACID	A
METHYL DICHLORIDE	A	LOEUM 25%	D
METHYL ETHYL KETONE	C1	OLEUM 100%	D
METHYL ISOBUTYL KETONE	C	OXALIC ACID (COLD)	A
METHYL ISOPROPYL KETONE	C	PARAFFIN	A
METHYL METHACRYLATE	A	PENTANE	A
METHYLAMINE	A	PERCHLOROETHYLENE	D
METHYLLENE CHLORIDE	A	PETROLATUM	A
MILK	A	PHENOL (10%)	C
MOLASSES	A	PHENOL (CARBOLIC ACID)	C
MUSTARD	A	PHOSPHORIC ACID (<40%)	A
NAPHTHA	A	PHOSPHORIC ACID (>40%)	B
NAPHTHALANE	A	PHOSPHORIC ACID (CRUDE)	B
NICKEL CHLORIDE	A	PHOTOGRAPHIC DEVELOPER	A
NICKEL SULFATE	A	PICRIC ACID	A
NITRATING ACID (>15% H_2SO_4)	D	PLATING SOLUTIONS:	
NITRIC ACID (5-10%)	A1	ANTIMONY PLATING 130°F	B
NITRIC ACID (20%)	B1	ARSENIC PLATING 110°F	B
NITRIC ACID (50%)	D	BRASS PLATING:	
NITRIC ACID (CONCENTRATED)	D	CU-CD BRONZE BATH R.T.	B
NITROBENZENE	C1	CU-SN BRONZE BATH 160°F	C
OILS: ANALINE	A	CU-ZN BRONZE BATH 100°F	B
ANISE	A	CADMIUM PLATING:	
BAY	A	CYANIDE BATH 90°F	B
BONE	A	FLUOBORATE BATH 100°F	B
CASTOR	A	CHROMIUM PLATING:	
CINNAMON	A	CHROMIC-SULFURIC BATH 130°F	C
CITRIC	A	FLUOSILICATE BATH 95°F	C
CLOVE	A		
COCOA NUT	A		

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FLUORIDE BATH 130°F	C	PROPANE (LIQUIFIED)	A
BLACK CHROME BATH 115°F	C	PROPYLENE GLYCOL	C
BARREL CHROME BATH 95°F	C	PYRIDINE	A
COPPER PLATING (CYANIDE):		PYROGALLIC ACID	A
COPPER STRIKE BATH 120°F	B	ROSINS	A
ROCHELLE SALT BATH 150°F	C	RUM	A
HIGH SPEED BATH 180°F	C	RUST INHIBITORS	A
COPPER PLATING (ACID):		SALAD DRESSINGS	A
COPPER SULFATE BATH R.T.	D	SEA WATER	A
COPPER FLUOBORATE BATH 120°F	D	SHELLAC (BLEACHED)	A
COPPER PLATING (MISC):		SHELLAC (ORANGE)	A
COPPER PRYOPHOSPHATE	B	SILICONE	A
COPPER (ELECTROLESS)	B	SILVER BROMIDE	A
GOLD PLATING:		SILVER NITRATE	A
CYANIDE 150°F	D	SOAP SOLUTIONS	A
NEUTRAL 75°F	A	SODA ASH (SEE SODIUM	
ACID 75°F	A	CARBONATE)	
INDIUM SULFAMATE PLATING R.T.	A	SODIUM ACETATE	A
IRON PLATING:		SODIUM BICARBONATE	A
FERROUS CHLORIDE BATH 190°F	D	SODIUM BISULFATE	A
FERROUS SULFIDE BATH 150°F	D	SODIUM BISULFITE	A
FERROUS AM SULFATE BATH 150°F	D	SODIUM BORATE	A
FLUOBORATE 145°F	D	SODIUM CARBONATE	C1
SULFAMATE 140°F	A	SODIUM CHLORATE	A
LEAD FLUOBORATE PLATING	A	SODIUM CHLORIDE	A
NICKEL PLATING:		SODIUM CHROMATE	C
WATTS TYPE 115-160 °F	D	SODIUM CYANIDE	A
HIGH CHLORIDE 130°-160°F	D	SODIUM FLUORIDE	A
FLUOBORATE 100°-170°F	A	SODIUM HYDROXIDE (20%)	A2
SULFAMATE 100°-140°F	A	SODIUM HYDROXIDE (50%)	B2
ELECTROLESS 200°F	B	SODIUM HYDROXIDE (80%)	A1
RHODIUM 120°F	A	SODIUM HYPOCHLORITE (<20%)	C
SILVER PLATING 80°-120°F	A	SODIUM HYPOCHLORITE (100%)	D
TIN-FLUOBORATE PLATING 100°F	A	SODIUM HYPOSULFATE	C
TIN-LEAD PLATING 100°F	A	SODIUM METAPHOSPHATE	A
ZINC PLATING:		SODIUM METASILICATE	A
ACID CHLORIDE 140°F	A	SODIUM NITRATE	A
ACID SULFATE BATH 150°F	D	SODIUM PERBORATE	B
ACID FLUOBORATE BATH R.T.	A	SODIUM PEROXIDE	C
ALKALINE CYANIDE BATH R.T.	A	SODIUM POLYPHOSPHATE	A
POTASH	A	SODIUM SILICATE	A
POTASSIUM BICARBONATE	A	SODIUM SULFATE	A
POTASSIUM BROMIDE	A	SODIUM SULFIDE	A
POTASSIUM CARBONATE	A	SODIUM SULFITE	A
POTASSIUM CHLORATE	A	SODIUM TETRABORATE	A
POTASSIUM CHLORIDE	A	SODIUM THIOSULFATE (HYPO)	A
POTASSIUM CHROMATE	C	SORGHUM	A
POTASSIUM CYANIDE SOLUTIONS	A	SOY SAUCE	A
POTASSIUM DICHROMATE	C	STANNIC CHLORIDE	A
POTASSIUM FERROCYANIDE	A	STANNIC FLUOBORATE	A
POTASSIUM HYDROXIDE (CAUSTIC POTASH)	A	STANNOUS CHLORIDE	A
POTASSIUM NITRATE	A	STARCH	A
POTASSIUM PERMANGANATE	A	STEARIC ACID	B
POTASSIUM SULFATE	A	STODDARD SOLVENT	A
		STYRENE	A
		SUGAR (LIQUIDS)	A

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SULFATE (LIQUORS)	A
SULFUR CHLORIDE	C
SULFUR DIOXIDE	A1
SULFUR DIOXIDE (DRY)	A1
SULFUR TRIOXIDE (DRY)	A
SULFURIC ACID (<10%)	A1
SULFURIC ACID (10-75%)	A1
SULFURIC ACID (75-100%)	C1
SULFURIC ACID (HOT CONC)	D
SULFURIC ACID (COLD CONC)	D
SULFUROUS ACID	A
SULFURYL CHLORIDE	A
TALLOW	A
TANNIC ACID	A
TANNING LIQUORS	A
TARTARIC ACID	A
TATRACHLOROETHANE	A
TETRAHYDROFURAN	A
TOLUENE (TOLUOL)	B1
TOMATO JUICE	A
TRICHLOROETHANE	A
TRICHLOROETHYLENE	C1
TRICHLOROPROPANE	A
TRICRESYKPHOSPHATE	A
TRIETHYLAMINE	A
TURPENTINE	B
URINE	A
VARNISH	A
VEGETABLE JUICE	A
VINEGAR	A
WATER, ACID, MINE	A
WATER, DISTILLED	A
WATER, FRESH	A
WATER, SALT	A
WEED KILLERS	A
WHEY	A
WHISKEY AND WINES	B
WHITE LIQUOR (PULP MILL)	A
WHITE WATER (PAPER MILL)	A
XYLENE	A
ZINC CHLORIDE	A
ZINC HYDROSULFITE	A
ZINC SULFATE	A