



# HARKNESS Industries, Inc.

## PRECISION CAST URETHANE

### Chemical Resistance of Urethanes

Chemical	MP750 MP950	MP750 MP600	Chemical	MP950	MP750 MP600	Chemical	MP950	MP750 MP600
Acetaldehyde	P	P	Esso # 90 Lub. Oil	E	G	Skydrol Oil (500)	F	P
Acetic Acid	P-F	P-F	Ferric Chloride	G	G	Silver Nitrate	G	G
Acetic Anhydride	P	P	Ferric Nitrate	G	G	Soap	E-G	G-F
Acetone	F-P	P	Ferrous Chloride	G	G	Sodium Acetate	G	G
Acetyl Bromide	F-P	P	Ferrous Sulfate	G	G	Sodium Bicarbonate	G	G
Acetyl Chloride	G-F	F	Formaldehyde	F-P	P	Sodium Bisulfate	G	G
Adipic Acid	E	G	Formic Acid	F-P	P	Sodium Borate	G	G
Air	E	E	Freon	E	F-P	Sodium Carbonate	G	G
Aluminum Chloride	G	G	Fuel Oil	F	G	Sodium Chlorate	G	G
Aluminum Sulfate	G	G	Gasoline (Aliphatic)	G	G-F	Sodium Chloride	G	G
Aluminum Sulfide	G	G	Gasoline (Aromatic)	F-P	P	Sodium Cyanide	G	G
Ammonia	F-G	G-F	Glycerine (Glycerol)	E	G	Sodium Dichromate	(discolors)	
Ammonium Acetate	F-P	F	Glycolic Acid	E-G	G	Sodium Ferrocyanide	G	G
Ammonium Carbonate	G	G	Greases	E-G	G	Sodium Fluoride	G	G-F
Ammonium Hydroxide	E-G	G	Heptane	E	G	Sodium Hydrosulfite	G	G
Ammonium Nitrate	G	G-F	Hexane	E	G	Sodium Hydroxide	G	G
Ammonium Persulfate	G	G	Hydrazine	P	P	Sodium Nitrate	G	G
Ammonium Sulfate	G	G	Hydrobromic Acid	G	G	Sodium Silicate	E-G	G
Ammonium Sulfide	G	G	Hydrochloric Acid	(discolors)		Sodium Sulfate	G	G
Ammonium Thiocyanate	G	G	Hydrocarbon Oil	E	C	Sodium Sulfide	(discolors)	
Amyl Acetate	P	F	Hydrochloric Acid	E	C	Sperry Oil	G	G
Amyl Alcohol	F	F-P	Hydrocyanic Acid	G-F	G-F	Steam	C	P
Amyl Chloride	F	F	Hydrofluoric Acid	G-F	F	Stoddard Solvent	E	G
Aniline	P	P	Hydrogen	E-G	G	Styrene	G	G
Aniline Hydrochloride	P	P	Hydrogen Peroxide	F-P	P	Sulfur Dioxide	G	G-F
Animal Fats & Oils	G-F	G-F	Hydrogen Sulfide	(discolors)		Sulfuric Acid	(discolors)	P
Antimony Salts	G	G	Hydroiodic Acid	(discolors)	G	Tannic Acid	F	F-P
Aqua Regia	G-E	G	Iodine Solution	(discolors)	G	Tartaric Acid	G-F	G-F
Arsenic Salts	E-G	G	Isocetane	(discolors)	G	Tin Salts	G	G
ASTM Oil #1	E-G	G	Isopropyl Alcohol	G-F	G-F	Titanium Salts	P	P
ASTM Oil #2	G	G	(Isopropanol)	G-F	G-F	Toluene	C-F	F
ASTM Oil #3	E-G	G	Isopropyl Ether	G-F	G-F	Transformer Oil	G-F	F
ASTM Reference Fuel A	E	E-G	JP-4 Oil	G-F	F	Trichloroacetic Acid	P	P
ASTM Reference Fuel B	G	G	Kerosene	E	G	Trichloroethylene	F-P	P
Atlantic Oil	E	E-G	Lactic Acid	E	G	Tricresyl Phosphate	F-P	P
Barium Carbonate	G	G	Lead Acetate	G	G	Triethanol Amine	G	G
Barium Hydroxide	G	G	Lead Chloride	G	G	Trisodium Phosphate	G	G
Benzaldehyde	F-P	P	Linseed Oil	E	G	Turpentine	E	G
Benzene	P	P	Lubricating Oil	E	G	Urea	G	G
Benzene (Gasoline)	G-F	F	Magnesium Salts	G	G	Vegetable Oil	E	G-F
(Aromatic)	G-F	F	Maleic Acid	F-P	P	Water	G	G
Benzoic Acid	G-F	F-P	Mercury	E-G	G	Xylene	F	F-P
Boric Acid	G	G	Methyl Alcohol	G	G-F	Xylol	F-P	F-P
Bromine	G-F	G-F	(methanol)	G	G-F	Zinc Chloride	G	G
(discolors)			Methyl Ethyl Ketone	P	P	Zinc Sulfate	G	G
Bunker Oil	E-G	G	Methylene Chloride	P	P	Acids, Inorganic		
Butane	G	G-F	MIL-D-5606 Oil	F	F-P	Alcohols		
Butyl Acetate	P	P	MIL-L-7808-B Oil	E-G	G-F	Alkalis		
Butyl Alcohol	G	F-G	Mineral Oil	E	E	Chlorinated Solvents		
Calcium Carbonate	G	G	Mobil Arctic Oil	E	G	Inks		
Calcium Chloride	G	G	Naphtha	G	G	Foodstuffs		
Calcium Hydroxide	G	G	Natural Gas	G	G	Beer	E	E
Calcium Nitrate	G	G	(discolors)			Butter	E	E
Calcium Sulfate	G	G	Nickel Salts	F	F-P	Orange Juice	E-G	G
Carbon Dioxide	E	E	Nitric Acid	P	P	Chocolate Syrup	E	E
Carbon Disulfide	G-F	G-F	Nitrobenzene	E	E	Fish Oils	E	E
Carbon Tetrachloride	F	P	Nitrogen	E	E	Glucose Solution	E	E
Castor Oil	E-G	G	Oleic Acid	E-G	G	Milk	E	E
Chlorine	G-F	G	Oxalic Acid (5%)	E	E	Tomato Juice	E	E
Chloroacetic Acid	F-P	F-P	Oxygen	E	E	Vinegar	E	E
Chloroform	F	P	Ozone	E	E	Whiskey	E	E
Chromic Acid	F-P	P	Paints	E-G	G	Wine	E	E
Chromium Potassium Sulfate	G	G	Perchloric Acid	P	P			
Citric Acid	G	G	Perchloroethylene	F-P	P			
Cottonseed Oil	E	G	Petroleum	E-G	G			
Cresol (meta)	P	P	Phenol (carbolic acid)	P	P			
Cupric Chloride	G	G	Phosphoric Acid (dil.)	G-F	G-F			
Cupric Nitrate	G	G	Phosphoric Acid (conc.)	F	P			
Cupric Sulfate	G	G	Potassium Cyanide	E	G			
Cyclohexanone	P	P	Potassium Salts	G	G			
			Propane	G	G			
Dibutyl Phthalate	F-P	P	Propyl Alcohol	G-F	G			
Dibutyl Ether	G	G	Propylene Glycol	G	G			
Dichlorobenzene (Ortho)	F	F	Pydraul Oil	P	P			
Dodecyl Mercaptan	G-F	G	SAE # 10 Oil	E	G			
Diester Oil	G	G	Seawater	E-G	G			
Dimethyl Acetamide	P	P	Silicic Acid	G-E	G			
Dimethyl Formamide	P	P						
DTE Oil (heavy, medium)	G	G-F						
Ether	G-F	G-F						
Ethyl Acetate	G	P						
Ethyl Alcohol (Ethanol)	G-F	G-F						
Ethyl Bromide	F	F-P						
(discolors)								
Ethyl Chloride	F	F-P						
Ethylene Glycol	G	G-F						

Test: Samples were totally immersed for 10 days at 70°F. The rating was based on the CHANGE of volume according to the following legend:

E = Excellent (0-2%) F = Fair (15-33%)  
G = Good (2-15%) P = Poor (over 33%)

Footnote — Chemicals are at reagent strength or in solution at solubility parameter unless otherwise indicated.  
ABOVE DATA IS PROVIDED AS A GENERAL GUIDELINE.  
WE RECOMMEND TESTS UNDER SPECIFIC CONDITIONS FOR PROPER QUALIFICATION.

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