



# CHEMICAL RESISTANCE CHART

## POLIBRID<sup>®</sup> 705E SOLVENTLESS ELASTOMERIC MODIFIED POLYUREA

**Polibrid 705E** coating or lining systems are capable of exceptional resistance to a wide variety of chemical solutions. Regardless of the recommendations made herein, however, these materials have definite limitations and each potential application should be carefully appraised by the user or specifier on a case by case basis. Higher temperatures, length of time in contact with a particular solution, type and condition of substrate, and other factors may significantly influence the performance of **Polibrid 705E**, especially in immersion lining applications. For applications involving chemicals not listed below, we strongly recommend that the materials be tested by the user under conditions that closely resemble the expected service environment. Interpretations of ratings are listed at the end of this chart. Consult your Polibrid Technical Service Representative for further assistance before specifying!

	<u>Rating</u>		<u>Rating</u>		<u>Rating</u>
<b>WATER</b>		<b>ALKALIS</b>		<b>BLEACH / DETERGENTS</b>	
Brine	R	Ammonium Hydroxide	R	Chlorine Dioxide	R
Chlorinated Water	R	<20%		Chlorox	R
De-Ionized Water	R	Ammonium Hydroxide	L	Hydrogen Peroxide <35%	L
Distilled Water	R	>20%		Phosphorous	R
Raw Water	R	Aqueous Ammonia	R	Sodium Hypochlorite <18%	R
Sea Water	R	Calcium Hydroxide <50%	R	Sodium Hypochlorite >18%	L
Softened Water	R	Calcium Hypochlorite <15%	R	Sodium Silicate	R
		Carbon Disulfide	R		
<b>MUNICIPAL WASTEWATER</b>		Detergents	R	<b>ALCOHOLS</b>	
Activated Sludge	R	Potassium Hydroxide <50%	R	2-Propanol	L
Hydrogen Sulfide	R	Soaps	R	Ethanol	L
Gas		Sodium Bicarbonate	R	Furfuryl	NR
Methane Gas	R	Sodium Carbonate	R	Isopropyl	L
MIC (Bacterial)	R	Sodium Chlorite	NR	Methanol	L
Raw Sewage	R	Sodium Hydroxide ≤50%	R		
Treated Effluent	R	Sodium Nitrite	L	<b>ALIPHATICS</b>	
		Sodium Sulfate	R	Crude Oil	L
<b>ACIDS</b>		Trisodium Phosphate	R	Diesel	R
Acetic <5%	R			Fuel Oil #2	R
Acrylic	NR	<b>SALTS</b>		Fuel Oil #4	R
Butyric <10%	L	Calcium Bromide	R	Fuel Oil #6	R
Chromic <2%	L	Calcium Chloride	R	Gasoline	L
Citric	R	Cuprous Chloride	R	Heptane	R
Cresylic	NR	Ferric Chloride	R	Hexane	R
Formic <50%	L	Ferric Sulfate	L	Hydraulic Oils	R
Hydrochloric <17%	R	Ferrous Chloride	R	JP-4	L
Hydrochloric <37%	L	Lithium Bromide	R	JP-5	R
Hydrofluoric	NR	Magnesium Chloride	R	Kerosene	R
Lactic	R	Magnesium Sulfate	R	Mineral Spirits	L
Methacrylic	NR	Potassium Iodide	L	Motor Oils	R
Nitric <5%	L	Potassium Monopersulfate	L	Naphtha	L
Oleic	L	Sodium Bisulfite	R	Natural Gas	R
Phosphoric <70%	R	Sodium Chloride	R	Octane	R
Stearic	L	Sodium Nitrate	L	Pentane	R
Sulfamic	NR	Zinc Bromide	R	Transformer Oils	R
Sulfuric <30%	R				
Sulfuric <98%	L				

Manufactured By :

**POLIBRID COATINGS, INC.**

6700 F.M. 802, Brownsville, TX 78526

Tel. (956) 831-7818 / Fax (956) 831-7810

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	<u>Rating</u>		<u>Rating</u>		<u>Rating</u>
<b>AROMATICS</b>		<b>OTHER SOLUTIONS</b>		<b>OTHER SOLUTIONS</b>	
Benzene	L	Acetaldehyde	NR	Methyl Acrylate	L
Chlorobenzene	L	Acrylonitrile	NR	Methacrylonitrile	NR
Condensate	L	Alum	R	Methyl Methacrylate	NR
Ethylbenzene	L	Aniline	NR	Monoethanolamine	NR
ETBE	L	Animal Grease & Fats	R	Morpholine	NR
MTBE	L	Atrazine	NR	Ozone < 2 ppm	L
Nitrobenzene	L	Coal (low sulfur)	R	Pine-Sol	NR
Phenol	L	Coal (high sulfur)	R	Polyethylene (dry)	R
Styrene	L	Cyclohexylamine	NR	Polypropylene (dry)	R
Toluene	L	Dextrose	R	Polystyrene (dry)	R
Xylene	L	Di-Octyl Phthalate	L	Polytetrafluoroethane (dry)	R
		Dibutyl Maleate	NR	Polyvinyl Chloride (dry)	R
<b>KETONES</b>		Dibutyl Phthalate	NR	Potash Ore	R
Acetone	NR	Diethylene Glycol Butyl	L	Pulp Liquor	R
Methylamyl Ketone	NR	Ether		Quaternary Amine	NR
Methyl Ethyl Ketone	NR	Dimethylformamide	NR	Silage	R
Methyl Isobutyl Ketone	NR	Ethylene Glycol Butyl	L	Silicone Fluids	R
		Ether		Skydrol	L
<b>CHLORINATED SOLVENTS</b>		Fluorene-9-Bisphenol	NR	Sugar (saturated)	R
1'1' Trichloroethylene	NR	Formaldehyde	NR	Sugar Syrup	R
Carbon Tetrachloride	NR	Fructose	R	Toluidine	NR
Methyl Isobutyl Chloride	NR	Guar Gum	R	Tri-Ethyl Phosphate	NR
Methylene Chloride	NR	Hydroquinone	NR	Triethanolamine	NR
Vinyl Trichloride	NR	Kaolin (China Clay)	R	Urea	R

**INTERPRETATION OF THE CHEMICAL RESISTANCE RATINGS :**

(R) - RECOMMENDED	Suitable for continuous immersion or exposure. No significant weight gain or swelling and virtually no loss of tensile strength or hardness after full immersion for 30 days at 72°F -77°F (21°C -25°C). Higher temperatures or a blend of solutions may substantially reduce chemical resistance.
(L) - LIMITED	Suitable for temporary exposure to chemical splash or spills, as in secondary containment, <u>with 24 hour clean-up highly recommended</u> . May be suitable for continuous exposure to gases or fumes. Less than 10% weight gain or swelling with corresponding loss of tensile strength and hardness after full immersion for 7 days at 72°F -77°F (21°C -25°C). Higher temperatures, longer exposure times or a blend of solutions will substantially reduce chemical resistance.
(NR) - NOT RECOMMENDED	Not suitable for service. Rapid chemical degradation with more than 10% weight gain or swelling and substantial loss of tensile strength and hardness after full immersion for 7 days at 72°F -77°F (21°C -25°C).

**CONSULT YOUR POLIBRID TECHNICAL SERVICE REPRESENTATIVE BEFORE SPECIFYING!**

**LIMITATIONS & IMPORTANT NOTES:** This data is offered in general terms and must be considered as such. Compliance with existing project specifications, actual job conditions, and the buyer's specific needs must be taken into consideration. We do not guarantee the results to be obtained by others unless specifically done so, in writing, by an authorized officer of Polibrid Coatings, Inc.. Since methods and conditions of application are beyond our control, the user assumes all risk of use or handling. No warranty, express or implied, is made concerning the use of these products or recommendations and no liability for their use, or inability to use, is accepted. The manufacturer's sole responsibility for claims arising out of breach of warranty, negligence, strict liability or otherwise, is limited to the purchase price or the replacement of materials manufactured and sold by Polibrid Coatings, Inc.. The manufacturer reserves the right to modify this data without previous notice or liability.