

TECHNICAL BULLETIN

Chemical Resistance Chart

Date: May 3, 2007

SUBJECT: CORROSION & CHEMICAL COMPOUND RESISTANCE COMMON COMPONENTS & INDUSTRY FACINGS

| COMPOUND | LDPE | HDPE | PP | PVC | Alum | C. Steel | T-316 SS | T-304 SS |
|----------------------|-----------------|-----------------|------------------------|-------------------------|------|----------|----------|----------|
| Acetic Acid, Glacial | 2 | 1 | 2 | 4 | 1 | 4 | 1 | 3 |
| Acetone | 4 | 4 | 1 | 4 | 1 | 1 | 1 | 1 |
| Acetonitrile | 1 | 1 | 3 | 4 | 2 | 1 | 1 | 1 |
| Acrylonitrile | 1 | 1 | 3 | 4 | 2 | 1 | 1 | 1 |
| Alcohols: | | | | | | | | |
| Amyl | 1 | 1 | XXX | 5 | 2 | 2 | 1 | 1 |
| Benzyl | 4 | 3 | 4 | 3 | 2 | 2 | 1 | 1 |
| Ethyl | 2 | 1 | 2 | 3 | 2 | 2 | 1 | 1 |
| Hexyl | 2 | 2 | XXX | 5 | 1 | 1 | 1 | 1 |
| Isobutyl | 1 | 1 | 1 | 3 | 2 | 5 | 1 | 1 |
| Isopropyl | 1 | 1 | 1 | 3 | 2 | 1 | 1 | 1 |
| Methyl | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 |
| Aluminum Hydroxide | 2 | 1 | 2 | 2 | 2 | 5 | 3 | 1 |
| Ammonium Chloride | XXX | 1 | XXX | 5 | 3 | 4 | 4 | 3 |
| Ammonium Hydroxide | 2 | 1 | 2 | 3 | 2 | 4 | 1 | 1 |
| Amyl Acetate | 3 | 2 | 3 | 4 | 1 | 2 | 1 | 1 |
| Amyl Chloride | 4 | 3 | 4 | 4 | 1 | 1 | 1 | 1 |
| Aniline | 2 | 2 | 3 | 4 | 3 | 2 | 2 | 1 |
| Benzaldehyde | 2 | 1 | 2 | 4 | 2 | 1 | 2 | 2 |
| Benzene | 4 | 4 | 4 | 4 | 2 | 1 | 2 | 2 |
| Bromine | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Butadiene | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 |
| Butyric Acid | 4 | 4 | 4 | 4 | 2 | 4 | 2 | 2 |
| Calcium Hydroxide | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 3 |
| Calcium Hypochlorite | 1 | 1 | 1 | 4 | 4 | 4 | 2 | 3 |
| Chloroform | 4 | 4 | 4 | 4 | 2 | 2 | 1 | 2 |
| Cresols | 4 | 4 | 3 | 4 | 1 | 1 | 1 | 1 |
| Cyclohexane | 4 | 4 | 4 | 4 | 1 | 2 | 1 | 1 |
| Cyclohexanone | 4 | 4 | 4 | 4 | 1 | 2 | 1 | 1 |
| Diethylamine | 4 | 4 | 3 | 4 | 2 | 1 | 2 | 5 |
| Diethylene Glycol | 1 | 1 | 1 | 4 | 2 | 5 | 1 | 1 |
| Ethyl Acetate | 1 | 1 | 1 | 4 | 2 | 1 | 2 | 2 |
| Ethylene Glycol | 1 | 1 | 1 | 4 | 2 | 1 | 1 | 1 |
| 1 = Excellent | 2 = Good | 3 = Fair | 4 = Not Advised | XXX = Not Tested | | | | |

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This information is based on our best knowledge, but POLYGUARD cannot guarantee the results to be obtained.

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NIA National Insulation Association

| COMPOUND | LDPE | HDPE | PP | PVC | Alum | C. Steel | T-316 SS | T-304 SS |
|-------------------------|-----------------|-----------------|----------------------------|-----------------------------|------|----------|----------|----------|
| Fatty Acids | 2 | 1 | 2 | 2 | 1 | 4 | 1 | 2 |
| Formaldehyde 40% | 2 | 1 | 2 | 4 | 2 | 1 | 1 | 1 |
| Gasoline | 4 | 2 | 3 | 4 | 1 | 1 | 1 | 1 |
| Heptane | 4 | 3 | 3 | 4 | 1 | 1 | 1 | 1 |
| Hexane | 4 | 3 | 3 | 4 | 1 | 1 | 1 | 1 |
| Hydrazine | 4 | 4 | 4 | 4 | 5 | 4 | 1 | 1 |
| Hydrochloric acid 20% | 1 | 1 | 1 | 2 | 4 | 4 | 4 | 4 |
| Hydrochloric acid 100% | XXX | XXX | XXX | 4 | 4 | 4 | 4 | 4 |
| Hydrofluoric acid 20% | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 |
| Hydrofluoric acid 100% | XXX | XXX | XXX | 5 | 4 | 4 | 2 | 2 |
| Hydrogen Peroxide 30% | 2 | 1 | 2 | 3 | 1 | 5 | 2 | 2 |
| Isopropyl Acetate | 3 | 2 | 3 | 4 | 2 | 2 | 1 | 3 |
| Kerosene | 4 | 2 | 3 | 4 | 1 | 1 | 1 | 1 |
| Mercury | 1 | 1 | 1 | 3 | 5 | 1 | 1 | 1 |
| Methyl Acetate | 4 | 3 | 3 | 4 | 1 | 1 | 1 | 1 |
| Methyl Ethyl Ketone | 4 | 4 | 2 | 4 | 1 | 1 | 1 | 1 |
| Methylene Chloride | 4 | 4 | 4 | 4 | 1 | 2 | 2 | 2 |
| Mineral Spirits | 4 | 4 | 4 | 4 | 1 | 5 | 1 | 1 |
| Nitric Acid 50% | 4 | 4 | 4 | 4 | 3 | 4 | 1 | 1 |
| Nitrobenzene | 4 | 4 | 4 | 4 | 1 | 2 | 1 | 2 |
| Phosphoric Acid 40% | 1 | 1 | 2 | 3 | 2 | 4 | 2 | 1 |
| Potassium Hydroxide 80% | 1 | 1 | 1 | 3 | 4 | 5 | 2 | 2 |
| Propylene Glycol | 1 | 1 | 1 | 3 | 2 | 1 | 2 | 2 |
| Silver Nitrate | 2 | 1 | 2 | 2 | 4 | 4 | 2 | 2 |
| Sodium Hydroxide 80% | 2 | 3 | 1 | 3 | 4 | 4 | 3 | 2 |
| Sodium Hypochlorite 20% | 1 | 1 | 3 | 3 | 4 | 4 | 3 | 3 |
| Sulfuric Acid 10% | 1 | 1 | 1 | 2 | 4 | 4 | 2 | 4 |
| Sulfuric Acid 10% -75% | 2 | 1 | 2 | 4 | 4 | 4 | 4 | 4 |
| Sulfuric Acid 75% -100% | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 3 |
| Tetrachlorethane | XXX | XXX | XXX | 4 | 3 | 1 | 1 | 2 |
| Tetrachloroethylene | XXX | XXX | XXX | 4 | 5 | 1 | 1 | 5 |
| Touene | 4 | 2 | 3 | 3 | 1 | 1 | 1 | 1 |
| Trichloroethane | 4 | 4 | 4 | 4 | 3 | 2 | 1 | 2 |
| Trichloroethylene | 4 | 4 | 4 | 4 | 1 | 4 | 2 | 2 |
| Xylene | 3 | 3 | 4 | 4 | 1 | 2 | 1 | 1 |
| 1 = Excellent | 2 = Good | 3 = Fair | 4 = Not Advised | XXX = Not Tested | | | | |

The information in this chart reflects general information for general guidelines and should not be used as a substitute for testing and evaluation of chemicals and components. Not to be used for legal advice, or legal opinions. Readers should determine his necessary realizations from his own actual testing and evaluation. Polyguard accepts nor assumes any risks or liabilities for your use of this document or the information contained therein.