

# Polyurethane Chemical Resistance (Megabund)

|                      | Rating      | Percent Change      |
|----------------------|-------------|---------------------|
|                      | 1 =         | 0 to 3%             |
|                      | Excellent 2 | 4 to                |
|                      | = Good      | 15% 16 to           |
|                      | 3 = Fair    | 35% 36%             |
|                      | 4 = Poor    | & Up                |
| <u>Chemical</u>      |             | <u>Polyurethane</u> |
| Acetaldehyde         |             | 4                   |
| Acetic Acid          |             | 4 - 3               |
| Acetic Anhydride     |             | 4                   |
| Acetone              |             | 4                   |
| Acetyl Bromide       |             | 3-4                 |
| Acetyl Chloride      |             | 3-4                 |
| Acetylene            |             | 2-3                 |
| Adipic Acid Aluminum |             | 1 2                 |
| Chloride Aluminum    |             | 2 2                 |
| Sulphate Aluminum    |             | 2                   |
| Sulphide Ammonia     |             | 3-4                 |
| Ammonium Acetate     |             | 2                   |
| Ammonium             |             |                     |
| Carbonate            |             |                     |
| Ammonium Hydroxide   |             | 1-2                 |
| Ammonium Nitrate     |             | 2                   |
| Ammonium Persulfate  |             | 2                   |
| Ammonium Sulfate     |             | 2                   |
| Ammonium Sulfide     |             | 2                   |
| Ammonium             |             | 2                   |
| Thiocyanide Amyl     |             | 4                   |
| Acetate              |             | 3                   |
| Amyl Alcohol         |             | 3                   |
| Amyl Chloride        |             | 4                   |
| Aniline Aniline      |             | 4                   |
| Hydrochloride        |             |                     |

| <u>Chemical</u>                  | <u>Polyurethane</u> |
|----------------------------------|---------------------|
| Animal Fats & Oils               | 2-3                 |
| Antimony Salts                   | 2                   |
| Aqua Regia                       | 4                   |
| Arsenic Salts                    | 2-1                 |
| ASTM Oil #1                      | 1-2                 |
| ASTM Oil #2                      | 2                   |
| ASTM Oil #3                      | 2                   |
| ASTM Reference Fuel A            | 1                   |
| ASTM Reference Fuel B            | 2                   |
| Atlantic Oil                     | 1                   |
|                                  |                     |
| Barium Carbonate                 | 2                   |
| Barium Hydroxide                 | 1                   |
| Benzaldehyde                     | 3-2                 |
| Benzene                          | 4                   |
| Benzene (Gasoline)<br>(Aromatic) | 2-3                 |
| Benzoic Acid                     | 2-3                 |
| Boric Acid                       | 1                   |
| Bromine                          | 2-3                 |
| Bunker Oil                       | 1-2                 |
| Butane                           | 1                   |
| Butyl Acetate                    | 4                   |
| Butyl Alcohol                    | 2                   |
|                                  |                     |
| Calcium Carbonate                | 2                   |
| Calcium Chloride                 | 1                   |
| Calcium Hydroxide                | 1                   |
| Calcium Nitrate                  | 2                   |
| Calcium Sulfate                  | 2                   |
| Carbon Dioxide                   | 1                   |
| Carbon Disulfide                 | 2-3                 |
| Carbon Monoxide                  | 1                   |
| Carbon Tetrachloride             | 3                   |
| Castor Oil                       | 1-2                 |
| Chlorine                         | 2-3                 |
| Chloroacetic Acid                | 3-4                 |
| Chloroform                       | 4                   |
| Chromic Acid                     | 3-4                 |
| Chromium Potassium Sulfate       | 2                   |
| Citric Acid                      | 2                   |
| Cottonseed Oil                   | 1                   |
| Cresol (meta)                    | 4                   |

| <u>Chemical</u>         | <u>Polyurethane</u> |
|-------------------------|---------------------|
| Cupric Chloride         | 1                   |
| Cupric Nitrate          | 2                   |
| Cupric Sulphate         | 2                   |
| Cyclohexanone           | 4                   |
| Cyclohexane             | 2                   |
|                         |                     |
| Dubutyl Phthalate       | 3-4                 |
| Dibutyl Ether           | 2                   |
| Dichlorobenzene (Ortho) | 3                   |
| Dodecyl Mercaptan       | 2-3                 |
| Diester Oil             | 2                   |
| Dimethyl Acetamide      | 4                   |
| Dimethyl Formamide      | 4                   |
| DTE Oil (heavy, medium) | 2                   |
|                         |                     |
| Ether                   | 2-3                 |
| Ethyl Acetate           | 4                   |
| Ethyl Alcohol (Ethanol) | 3                   |
| Ethyl Bromide           | 3                   |
| Ethyl Chloride          | 3                   |
| Ethylene Glycol         | 2                   |
| Esso #90 Lub. Oil       | 1                   |
|                         |                     |
| Ferric Chloride         | 2                   |
| Ferric Nitrate          | 2                   |
| Ferrous Chloride        | 2                   |
| Ferrous Sulfate         | 2                   |
| Formaldehyde            | 3                   |
| Formic Acid             | 3-4                 |
| Freon, 12 or 113        | 1                   |
| Fuel Oil                | 2                   |
|                         |                     |
| Gasoline                | 2                   |
| Glycerine (Glycerol)    | 1                   |
| Cylcolic Acid           | 2                   |
| Greases                 | 1-2                 |
|                         |                     |
| Heptane                 | 1                   |
| Hexane                  | 1                   |
| Hydrazine               | 4                   |
| Hydrobromic Acid        | 2                   |

| <b><u>Chemical</u></b>    | <b><u>Polyurethane</u></b> |
|---------------------------|----------------------------|
| Hydrocarbon Oil           | 1                          |
| Hydrochloric Acid, 20%    | 2                          |
| Hydrofluoric Acid         | 2-3                        |
| Hydrogen                  | 1-2                        |
| Hydrogen Peroxide         | 2                          |
| Hydrogen Sulfide          | 3-4                        |
| Hydroiodic Acid           | 2                          |
| <br>                      |                            |
| Iodine Solution           | 1                          |
| Isooctane                 | 2                          |
| Isopropyl                 |                            |
| Alcohol                   | 2-3                        |
| Isopropyl Ether           | 2                          |
| <br>                      |                            |
| JP-4 Oil                  | 2-3                        |
| JP-5 & 6                  | 4                          |
| <br>                      |                            |
| Kerosene                  | 2                          |
| <br>                      |                            |
| Lactic Acid               | 2                          |
| Lead Acetate              | 2                          |
| Linseed Oil               | 2                          |
| Lubricating Oil           | 2                          |
| <br>                      |                            |
| Magnesium Hydroxide       | 1                          |
| Magnesium Salts           | 2                          |
| Malaic Acid               | 3-4                        |
| Mercury                   | 1-2                        |
| Methyl Alcohol (methanol) | 4                          |
| Methyl Ethyl Ketone       | 4                          |
| Methylene Chloride        | 4                          |
| MIL-D-5606 Oil            | 3                          |
| MIL-L-7808                | 1-2                        |
| Mineral Oil               | 1                          |
| Mobil Artic Oil           | 1                          |
| <br>                      |                            |
| Naphthalene               | 2                          |
| Natural Gas               | 2                          |
| Nickel Salts              | 3                          |
| Nitric Acid               | 4                          |
| Nitrobenzene              | 4                          |
| Nitrogen                  | 1                          |

| <u>Chemical</u>         | <u>Polyurethane</u> |
|-------------------------|---------------------|
| Oleic Acid              | 1-2                 |
| Oxalic Acid (5%)        | 1                   |
| Oxygen                  | 1                   |
| Ozone                   | 1                   |
| <br>                    |                     |
| Palmitic Acid           | 1                   |
| Paints                  | 1-2                 |
| Perchloric Acid         | 4                   |
| Perchloroethylene       | 3-4                 |
| Petroleum               | 1-2                 |
| Phenol (carbolic acid)  | 4                   |
| Phosphoric Acid (dil.)  | 2-3                 |
| Phosphoric Acid (conc.) | 3                   |
| Potassium Cyanide       | 1                   |
| Potassium Salts         | 2                   |
| Propane                 | 2                   |
| Propyl Alcohol          | 2-3                 |
| Propylene Glycol        | 2                   |
| Pydraul Oil             | 4                   |
| <br>                    |                     |
| SAE #10 Oil             | 1                   |
| Seawater                | 1-2                 |
| Silicic Acid            | 2-1                 |
| Skydrol Oil (500)       | 4                   |
| Silver Nitrate          | 2                   |
| Soap                    | 2-3                 |
| Sodium Acetate          | 1-2                 |
| Sodium Bicarbonate      | 2                   |
| Sodium Bisulfate        | 2                   |
| Sodium Borate           | 2                   |
| Sodium Carbonate        | 2                   |
| Sodium Chlorate         | 2                   |
| Sodium Chloride         | 2                   |
| Sodium Cyanide          | 2                   |
| Sodium Dichromate       | 2                   |
| Sodium Ferrocyanide     | 2                   |
| Sodium Fluoride         | 2                   |
| Sodium Hydrosulfite     | 2                   |
| Sodium Hydroxide, 45%   | 2                   |
| Sodium Nitrate          | 2                   |
| Sodium Silicate         | 1-2                 |
| Sodium Sulfate          | 2                   |

**Chemical**

|                         |     |
|-------------------------|-----|
| Sodium Sulfide          | 2   |
| Sodium Hypochlorite 5%  | 4   |
| Sperry Oil              | 2   |
| Steam                   | 4   |
| Stoddard Solvent        | 1   |
| Styrene                 | 2   |
| Sulfur Dioxide          | 2   |
| Sulfuric Acid. 10 - 50% | 3-4 |
| Tannic Acid, 10%        | 1   |
| Tartaric Acid           | 1   |
| Tin Salts               | 2   |
| Titanium Salts          | 2   |
| Toluene                 | 4   |
| Transformer Oil         | 2-3 |
| Trichloroacetic Acid    | 4   |
| Trichloroethylene       | 4   |
| Tricresyl Phosphate     | 3-4 |
| Triethanol Amine        | 2   |
| Trisodium Phosphate     | 2   |
| Turpentine              | 3   |
| Urea                    | 2   |
| Varnish                 | 2   |
| Vegetable               | 1   |
| Water                   | 2   |
| Xylene                  | 3   |
| Xylol                   | 3-4 |
| Zinc Chloride           | 2   |
| Zinc Sulfate            | 2   |