



## Fluid Resistance of ATRA-FLEX® Polyurethane Flexible Inserts

The following information has been prepared as a guide to the fluid resistance of the ATRA-FLEX® Flexible Coupling Inserts. ATR Sales, Inc. emphasizes that the table should be used as a guide only. Other requirements necessary for satisfactory performance must also be taken into consideration.

The best way to determine whether or not the Insert will be entirely satisfactory for a given application is to test it in actual service. If this is impractical, then tests should be devised which simulate actual service conditions as closely as possible.

The Inserts were immersed for seven days at 75° F. The rating was based on volume change according to the following key:

1	=	Excellent	( 0 - 3% )
2	=	Good	( 4 - 15% )
3	=	Fair	( 16 - 35% )
4	=	Poor	( 36% Up )

Acetaldehyde	4	Butyl Alcohol	2	Fuel Oil	2	Oxygen	1
Acetic acid, 20%	4-3	Calcium Carbonate	2	Gasoline	2	Ozone	1
Acetic Anhydride	4	Calcium Chloride	1	Glycerine (Glycerol)	1	Palmitic Acid	1
Acetone	4	Calcium Hydroxide	1	Glycolic Acid	2	Paints	1-2
Acetyl Bromide	3-4	Calcium Nitrate	2	Greases	1-2	Perchloric Acid	4
Acetyl Chloride	3-4	Calcium Sulfate	2	Heptane	1	Perchloroethylene	3-4
Acetylene	2-3	Calcium Dioxide	1	Hexane	1	Petroleum	1-2
Adipic Acid <sup>oo</sup>	1	Carbon Disulfide	2-3	Hydrazine	4	Phenol (carboic acid)	4
Aluminum Chloride	2	Carbon Monoxide	1	Hydrobromic Acid	2	Phosphoric Acid (dil.)	2-3
Aluminum Sulphate	2	Carbon Tetrachloride	3	Hydrocarbon Oil	1	Phosphoric Acid (conc.)	3
Aluminum Sulfide	2	Castor Oil	1-2	Hydrochloric Acid, 20%	2	Potassium Cyanide	1
Ammonia	2	Chlorine	2-3	Hydrofluoric Acid	2-3	Potassium Salts	2
Ammonium Acetate	3-4	Chloroacetic Acid	3-4	Hydrogen	1-2	Propane	2
Ammonium Carbonate	2	Chloroform	4	Hydrogen Peroxide	2	Propyl Alcohol	2-3
Ammonium Hydroxide	1-2	Chromic Acid	3-4	Hydrogen Sulfide	3-4	Propylene Glycol	2
Ammonium Nitrate	2	Chromium Potassium Sulfate	2	Hydroiodic Acid	2	Pydral Oil	4
Ammonium Persulfate	2	Citric Acid	2	Iodine Solution	1	SAE #10 Oil	1
Ammonium Sulfate	2	Cottonseed Oil	1	Isooctane	2	Seawater	1-2
Ammonium Sulfide	2	Cresol (meta)	4	Isopropyl Alcohol (Isopropanol)	2-3	Silicic Acid	2-1
Ammonium Thiocyanide	2	Cupric Chloride	1	Isopropyl Ether	2	Skydrol Oil (500)	4
Amyl Acetate	4	Cupric Nitrate	2	JP-4 Oil	2-3	Silver Nitrate	2
Amyl Alcohol	3	Cupric Sulphate	2	JP-5 & 6	4	Soap	2-3
Amyl Chloride	3	Cyclohexanone	4	Kerosene	2	Sodium Acetate	1-2
Aniline	4	Cyclohexane	2	Lactic Acid	2	Sodium Bicarbonate	2
Aniline Hydrochloride	4	Dibutyl Phthalate	3-4	Lead Acetate	2	Sodium Bisulfate	2
Animal Fats & Oils	2-3	Dibutyl Ether	2	Linseed Oil	2	Sodium Borate	2
Antimony Salts	2	Dichlorobenzene (Ortho)	3	Lubricating Oil	2	Sodium Carbonate	2
Aqua Regia	4	Dodecyl Mercaptan	2-3	Magnesium Hydroxide	1	Sodium Chlorate	2
Arsenic Salts	2-1	Diester Oil	2	Magnesium Salts	2	Sodium Chloride	2
ASTM Oil #1	1-2	Dimethyl Acetamide	4	Malac Acid	3-4	Sodium Cyanide	2
ASTM Oil #2	2	Dimethyl Formamide	4	Mercury	1-2	Sodium Dichromate	2
ASTM Oil #3	2	DIE Oil (heavy, medium)	2	Methyl Alcohol (methanol)	4	Sodium Ferrocyanide	2
ASTM Reference Fuel A	1	Ether	2-3	Methyl Ethyl Ketone	4	Sodium Fluoride	2
ASTM Reference Fuel B	2	Ethyl Acetate	4	Methylene Chloride	4	Sodium Hydrosulfite	2
Atlantic Oil	1	Ethyl Alcohol (Etnanol)	3	MIL-D-5606 Oil	3	Sodium Hydroxide, 45%	2
Barium Carbonate	2	Ethyl Bromide	3	MIL-L-7808	1-2	Sodium Nitrate	2
Barium Hydroxide	1	Ethyl Chloride	3	Mineral Oil	1	Sodium Silicate	1-2
Benzaldehyde	3-2	Ethylene Glycol	1	Mobil Artic Oil	1	Sodium Sulfate	2
Benzene	4	Esso #90 Lub Oil	1	Naphthalene	2	Sodium Sulfide	2
Benzene (Gasoline) (Aromatic)	2-3	Ferric Chloride	2	Natural Gas	2	Sodium Hypochlorite 5%	4
Benzoic Acid	2-3	Ferric Nitrate	2	Nickel Salts	3	Sperry Oil	2
Boric Acid	1	Ferrous Chloride	2	Nitric Acid	4	Steam	4
Bromine	2-3	Ferrous Sulfate	2	Nitrobenzene	4	Stoddard Solvent	1
Bunker Oil	1-2	Formaldehyde	3	Nitrogen	1	Styrene	2
Butane	1	Formic Acid	3-4	Oleic Acid	1-2	Sulfur Dioxide	2
Butyl Acetate	4	Freon, 12 or 113	1	Oxalic Acid (5%)	1	Sulfuric Acid, 10 - 50%	3-4
Tannic Acid, 10%	1	Transformer Oil	2-3	Trisodium Phosphate	2	Water	2
Tartaric Acid	1	Trichloroacetic Acid	4	Turpentine	3	Xylene	3
Tin Salts	2	Trichloroethylene	4	Urea	2	Xykol	3-4
Titanium Salts	2	Tricresyl Phosphate	3-4	Varnish	2	Zinc Chloride	2
Toluene	4	Triethanol Amine	2	Vegetable	1	Zinc Sulfate	2