

# CHEMICAL, OIL AND SOLVENT RESISTANCE

Chemical resistance is rated on samples immersed for seven days at 20 degrees Centigrade (70 degrees F).

The ratings are based on volume change as follows:

<b>A = Excellent</b>	<b>0-3%</b>
<b>B = Good</b>	<b>4-15%</b>
<b>C = Fair</b>	<b>16-35%</b>
<b>D = Poor</b>	<b>36% and over</b>

<b>CHEMICAL</b>	<b>RATING</b>	<b>CHEMICAL</b>	<b>RATING</b>
Acetaldehyde	D	Butyl Alcohol	B
Acetic Acid	C-D		
Acetone	D	Calcium Hydroxide	A
Aluminum Chloride	A	Calcium Salts	A
Aluminum Sulphate	A	Carbon Monoxide	A
Ammonia	B	Carbon Tetrachloride	C
Ammonium Chloride	A	Castor Oil	A-B
Ammonium Hydroxide	A-B	Chlorine	C-D
Ammonium Nitrate	A	Chloroform	D
Ammonium Sulphate	A	Chromic Acid	C-D
Aniline	D	Chromium Salts	A
Animal Fats & Oils	A-B	Citric Acid	D
Antimony Salts	B	Cottonseed Oil	A
Arsenic Salts	A	Copper Salts	A
ASTM Oil #1	A-B	Cyclohexane	B
ASTM Oil #2	D	Cyclohexane	D
ASTM #3	B		
ASTM Ref. Fuel A	A	Dichlorobenzene	C
ASTM Ref. Fuel B	B	Diethylene Glycol	B
		Dimethylformaldehyde	D
Barium Hydroxide	A		

CHEMICAL	RATING	CHEMICAL	RATING
Barium Salts	A	Ethanol	B-C
Benzaldehyde	B-C	Ether	B-C
Benzene	D	Ethylene Glycol	B
Boric Acid	A		
Bromine	B-C	Ferric Salts	A
Butyl Acetate	D	Formaldehyde	C
Formic Acid	C-D	Mineral Oil	A
Fuel Oil	B	Naphthalene	A
Gasoline	A-B	Natural Gas	A
Glycerol	A	Nickel Salts	A
		Nitric Salts	A
		Nitric Acid	D
		Nitric Acid (5%)	A-B
Hexane	A	Nitrobenzene	D
Hydrazine	D		
Hydrobromic Acid	D	Oleic Acid	A-B
Hydrocarbon Oil	A	Oxalic Acid (5%)	A
Hydrochloric Acid	B	Oxygen	A
Hydrofluoric Acid	B-C	Ozone	A
Hydrogen Peroxide	B		
Hydrogen Sulphide	C-D	Paints	A
Iodine Solution	A	Polmitic Acid	A
Isooctane	B	Perchloric Acid	D
Isopropanol	B-C	Perchloroethylene	C-D
		Pairol	A-B
JP-4	B-C	Phenol	D
JP-5, JP-6 Oils	D	Phosphoric Acid (10%)	A-B
		Phosphoric Acid	C

CHEMICAL	RATING	CHEMICAL	RATING
Kerosene	B	Potassium Salts	A
		Propanol	B-C
Lactic Acid	B	Propylene Glycol	B
Lead Salts	A		
Linseed Oil	B	Seawater	A
Lubricating Oil	D	Silicic Acid	A-B
		Silver Salts	A
Magnesium Salts	A	Skydrol Oil	D
Manganese Salts	A	Soaps	A-B
Malaic Acid	C-D	Sodium Hydroxide (10%)	A-B
Mercury	A	Sodium Hydroxide (45%)	B-C
Methanol	D	Sodium Hypochlorite	D
Methyl Ethyl Ketone	D	Sodium Salts	A
Methylene Chloride	D	Steam	D
Styrene	A	Triethylanolamine	B
Sulphur Dioxide	B	Trisodium Phosphate	B
Sulfuric Acid (10%)	A-B	Turpentine	B-C
Sulfuric Acid (30%)	C	Urea	A-B
Tannic Acid	A		
Tartaric Acid	A	Varnish	A-B
Tin Salts	A		
Titanium Salts	A	Water	A
Toluene	D		
Transformer Oil	B-C	Xylene	C
Trichloroethylene	D		
Tricresyl Phosphate	C-D	Zinc Salts	A

## ADDITIONAL TESTS AND PROCEDURES

TEST PARAMETER	STANDARD
Hardness, Durometer	ASTM D2240
Modulus	ASTM D412
Ultimate Tensile Strength	ASTM D412
Elongation	ASTM D412
Tear Strength	ASTM D624 Die C
Compression Set	ASTM D395 Method B
Rebound	ASTM D2632
Abrasion Resistance	ASTM D1044 Tabor H22
Abrasion Resistance NBS	ASTM D1630

Note: Abrasion Resistance is rated as “very good” on standard cable protectors (Yellow Jacket and Bumble Bee series). Rated “excellent” for Hipperthane cable protectors.