

Comparative Properties Of Typical Proco Products, Inc. Elastomers

ANSI/ASTM D1418-77	CIIR	EPDM	CSM	CR	NBR	NR/IR
Elastomer Common Name	Chlorobutyl	EPDM/EPT	Hypalon	Neoprene	Nitrile/Buna-N	Gum/Natural
ASTM D-2000; SAE J-200 Military: MIL STD 417 Proco's Code	AA-BA RS B*D*O	BA-CA-DA RS E*Q	CE SC H	BC-BE SC F*N	BF-BG--BK-CH SB J*P	AA RN G*R
Chemical Name Definition	Chloro-Isobutylene Isoprene	Ethylene Propylene Polymer	Chlor-Sulfonated Polyethylene	Poly-Chlorprene	Butadiene Acro-Nitrile	Polyisoprene
Hardness Range: Duro A Specific Gravity Of Base Low Temp.- Min Service °F High Temp. -Max. Service °F	40-75 0.92 -10 to -60 250 to 300	40-90 0.86 -20 to -60 300	40-95 1.12-1.28 -30 to -60 275	40-95 1.23 -10 to -50 220	40-95 1.00 +30 to -40 240	30-90 0.93 -20 to -60 185
Abrasion Absorption, Water Acid - Concentrated Acid - Dilute Adhesion to Fabrics	Good Very Good Good Excellent Good	Good To Excel V.Good To Excel Excellent Excellent Good	Excellent Very Good Very Good Excellent Good	Excellent Good Good Excellent Excellent	Good Good Good Good Good	Excellent Very Good Fair To Good Fair To Good Excellent
Adhesion To Metals Chemicals Cold Dielectric Strength Dynamic Properties	Good Excellent Good Excellent Fair	Good To Excel. Excellent Excellent Excellent Good to Excel.	Excellent Excellent Good V.Good To Excel. Fair	Excellent Fair To Good Good Good Fair	Excellent Fair To Good Fair To Good Poor Good To Excel.	Excellent Fair To Good Excellent Excellent Excellent
Electrical Insulation Flame Heat Heat Aging Hydrocarbons-Aliphatic	Good To Excel. Poor Very Good Very Good Poor	Excellent Poor Excellent Excellent Poor	Good Good Excellent Very Good Fair To Good	Fair To Good Good Very Good Good Fair To Good	Poor Poor Good Good Excellent	Good To Excel. Poor Good Fair Poor
Hydrocarbons - Aromatic Hydrocarbons - Oxygenated Impermeability Oil - Animal & Vegetable Oil And Gasoline	Poor Good Very Low Very Good Poor	Poor Good To V.Good Fairly Low Good Poor	Fair Poor To Fair Low To Very Low Good Good	Fair Poor Low Good Good	Good Poor Low Very Good Excellent	Poor Fair To Good Fairly Low Poor To Good Poor
Oxidation Ozone Radiation Rebound - Cold Rebound - Hot	Excellent Excellent Good Poor Very Good	Excellent Outstanding Outstanding Very Good Very Good	Excellent Outstanding Very Good Fair To Good Good	V.Good To Excel. V.Good To Excel. Very Good Very Good Very Good	Good Fair Very Good Good Good	Good Poor To Fair Excellent Excellent Excellent
Set, Compression Solvents, Lacquer Steam Sunlight Aging Swelling In Oil	Fair Fair To Good Good Very Good Poor	Good Poor To Fair Excellent Outstanding Poor	Fair Poor Fair Outstanding Good To Excel.	Fair To Good Poor Fair Very Good Good	Good Fair Fair To Good Poor Very Good	Good Poor Fair To Good Poor Poor
Tear Tensile Strength Water Weather	Good Good Good Good To Excel.	Fair To Good Good To Excel. Excellent Excellent	Fair Fair Fair Excellent	Good Good Fair Excellent	Fair Good To Excel. Fair To Good Fair	Good To V.Good Excellent Fair To Good Fair
Generally Resistant To:	Animal And Veg. Oils, Fats, Greases, Air, Gas, Water, Many Oxidizing Chemicals, And Ozone	Vegetable And Animal Fats, Oils, Ozone, Many Strong And oxidizing Chemicals, Ketones, Alcohol's	Strong Acids and Bases, Freons, Hydroxides, Ozone, Alcohol's, Etching, Alkaline and Hypochlorite Solutions.	Moderate Acids and Chemicals, Ozone, Oils, Fats, and Many solvents. Oily Abrasive Applications.	Most Hydrocarbons, Fats, Oils Greases, Hydraulic Fluids, Chemicals and Solvents	Water, Air, Average Concentration Acids, Bases, Alcohol's, Salts, Ketones, Best Abrasion Resistance.
Generally Affected Or Attacked By:	Not For: Oils, Solvents, and Aromatic Hydrocarbons.	Not For: Mineral Oils, Solvents, and Aromatic Hydrocarbons.	Not For: Ketones, Esters, and Certain Chlorinated Oxidizing Acids. Chlorinated, Nitro and Aromatic Hydrocarbons	Not For: Oxidizing Acids, Esters and Ketones, Aromatic, Chlorinated and Nitro Hydrocarbons.	Not For: Ozone, Ketones, Esters, Aldehydes, Nitro and Chlorinated, Hydrocarbons, Polar Solvents, MEK.	Not For: Ozone, Strong Acids, Bases, Oils Solvents, Most Hydrocarbons