

Rubber Material Selection Guide

CR or Polychloroprene

Abbreviation	CR
Chemical Definition	Polychloroprene

Physical & Mechanical Properties

Durometer or Hardness Range	20 – 95 Shore A
Tensile Strength Range	3.45 – 20.68 MPa
Elongation (Range %)	100 % – 800 %
Abrasion Resistance	Very Good to Excellent
Adhesion to Metal	Excellent
Adhesion to Rigid Materials	Good to Excellent
Compression Set	Poor to Good
Flex Cracking Resistance	Good
Impact Resistance	Good to Excellent
Resilience / Rebound	Fair to Good
Tear Resistance	Good to Excellent
Vibration Dampening	Good to Excellent

Chemical Resistance

Acids, Dilute	Excellent
Acids, Concentrated	Poor
Acids, Organic (Dilute)	Good to Excellent
Acids, Organic (Concentrated)	Poor to Good
Acids, Inorganic	Good to Excellent
Alcohol's	Excellent
Aldehydes	Poor to Fair
Alkalies, Dilute	Good
Alkalies, Concentrated	Poor
Amines	Poor to Good
Animal & Vegetable Oils	Good
Brake Fluids, Non-Petroleum Based	Fair
Diester Oils	Poor
Esters, Alkyl Phosphate	Poor
Esters, Aryl Phosphate	Poor to Fair
Ethers	Poor
Fuel, Aliphatic Hydrocarbon	Poor to Good
Fuel, Aromatic Hydrocarbon	Poor to Fair
Halogenated Solvents	Poor
Hydrocarbon, Halogenated	Poor
Ketones	Poor to Fair
Lacquer Solvents	Poor
LP Gases & Fuel Oils	Good
Mineral Oils	Fair to Good
Oil Resistance	Fair
Petroleum Aromatic	Good
Petroleum Non-Aromatic	Good
Refrigerant Ammonia	Excellent
Silicone Oil	Fair to Excellent
Solvent Resistance	Fair

Thermal Properties

Low Temperature Range	-57°C to -34°C
Minimum for Continuous Use (Static)	-62°C
Brittle Point	-65°C
High Temperature Range	+93°C to +121°C
Maximum for Continuous Use (Static)	+121°C

Environmental Performance

Colorability	Fair
Flame Resistance	Fair to Good
Gas Permeability	Fair to Good
Odor	Fair to Good
Ozone Resistance	Good to Excellent
Oxidation Resistance	Good to Excellent
Radiation Resistance	Fair to Good
Steam Resistance	Fair to Good
Sunlight Resistance	Good to Excellent
Weather Resistance	Fair to Good
Water Resistance	Fair to Good

For assistance in identifying the appropriate polymer or material, or to develop and formulate a rubber compound to meet your specific application and performance requirements, please contact Zeta Chemicals.