

Chlorosulphonated Polyethylene Rubber (Hypalon®)

ASTM D1418 & ISO 1629 Designation: **CSM**

ASTM D2000, SAE J200 Type/Class: **BG, CE, CH**

Mil-R-3065 (Mil-Std 417) Class: ---



Advantages: High continuous operating temperature; good resistance to abrasion, ozone and UV; difficult to combust.

Limitations: Lack of tack; attacked by most organic liquids.

Physical & Mechanical Properties

Durometer or Hardness Range: 45-95 Shore A
Tensile Strength Range: 1,000 - 2,900 PSI
Elongation (Range%): 100% - 800%
Abrasion Resistance: Good to Excellent
Adhesion to Metal: Excellent
Adhesion to Rigid Materials: Excellent
Compression Set: Poor to Good
Flex Cracking Resistance: Fair to Good
Impact Resistance: Good to Very Good
Resilience/Rebound: Fair to Good
Tear Resistance: Fair to Good
Vibration Dampening: Fair to Good

Thermal Properties

General Temperature Range -65°F to 275°F
Min. for continuous Use (Static): -60°F
Brittle Point: -70°F
Max. for Continuous Use (Static): 275°F

Environmental Performance

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

Chemical Resistance

Acids, Dilute: Excellent
Acids, Concentrated: Good to Excellent
Acids, Organic (Dilute): Excellent
Acids, Organic (Concentrated): Good
Alcohols: Excellent
Aldehydes: Poor to Fair
Alkalies, Dilute: Good to Excellent
Alkalies, Concentrated: Good to Excellent
Amines: Poor
Animal & Vegetable Oils: Good
Brake Fluids, Non-Petroleum Based: Fair
Diester Oils: Poor
Esters, Alkyl Phosphate: Poor
Esters, Aryl Phosphate: Fair
Esters: Poor
Fuel, Aliphatic Hydrocarbon: Fair to Good
Fuel, Aromatic Hydrocarbon: Fair
Fuel, Extended (Oxygenated): Fair
Halogenated Solvents: Poor
Hydrocarbon, Halogenated: Poor
Ketones (MEK, acetone): Poor
Lacquer Solvents: Poor
LP Gases & Fuel Oils: Good
Mineral Oils: Good to Very Good
Oil Resistance: Fair to Good
Petroleum Aromatic: Poor
Petroleum Non-Aromatic: Fair
Refrigerant Ammonia: Good
Refrigerant Halofluorocarbons: R-11, R-12, R-13
Refrigerant Halofluorocarbons w/ Oil: R-11, R-12, R-22
Silicone Oil: Excellent
Solvent Resistance: Fair to Good