

# 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, R22  
Silicone Oil: Excellent  
Solvent Resistance: Fair to Good