

Polyacrylate Acrylic Rubber (ACM)

ASTM D1418 & ISO 1629 Designation: **ACM, ANM**

ASTM D2000, SAE J200 Type/Class: **DF, DH**

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



Advantages: Good resistance to high temperatures in both air and oil environments; ozone and oxygen and light resistant.

Limitations: Poor chemical resistance, poor water and moisture resistance, physical properties generally low, poor resistance to acids and bases, difficult to process.

Physical & Mechanical Properties

Durometer or Hardness Range: 40-90 Shore A
Tensile Strength Range: 500 - 2,500 PSI
Elongation (Range%): 100% - 450%
Abrasion Resistance: Fair to Good
Adhesion to Metal: Fair to Good
Adhesion to Rigid Materials: Fair to Good
Compression Set: Poor to Good
Flex Cracking Resistance: Fair to Good
Impact Resistance: Poor
Resilience/Rebound: Fair to Good
Tear Resistance: Poor to Good
Vibration Dampening: Good to Excellent

Thermal Properties

General Temperature Range -30°F to 400°F
Min. for continuous Use (Static): -30°F
Brittle Point: -40°F
Max. for Continuous Use (Static): 400°F

Environmental Performance

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

Chemical Resistance

Acids, Dilute: Fair
Acids, Concentrated: Poor to Fair
Acids, Organic (Dilute): Poor
Acids, Organic (Concentrated): Poor
Alcohols: Poor
Aldehydes: Poor
Alkalies, Dilute: Fair
Alkalies, Concentrated: Fair
Amines: Poor
Animal & Vegetable Oils: Good
Brake Fluids, Non-Petroleum Based: Poor
Diester Oils: Good
Esters, Alkyl Phosphate: Poor
Esters, Aryl Phosphate: Poor
Esters: Poor
Fuel, Aliphatic Hydrocarbon: Excellent
Fuel, Aromatic Hydrocarbon: Poor to Good
Fuel, Extended (Oxygenated): Fair to Good
Halogenated Solvents: Poor to Good
Hydrocarbon, Halogenated: Poor to Good
Ketones (MEK, acetone): Poor to Good
Lacquer Solvents: Poor to Good
LP Gases & Fuel Oils: Good
Mineral Oils: Good to Excellent
Oil Resistance: Excellent
Petroleum Aromatic: Fair
Petroleum Non-Aromatic: Good
Refrigerant Ammonia: Fair
Refrigerant Halofluorocarbons: R-11, R-12, R-13
Refrigerant Halofluorocarbons w/ Oil: R-11, R-12, R-13, R22
Silicone Oil: Excellent
Solvent Resistance: Good