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.

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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
- **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