

Rubber Material Selection Guide

ACM or Acrylic Rubber

Abbreviation	ACM
Chemical Definition	Copolymer Ethyl Butyl Acrylate

Physical & Mechanical Properties

Durometer or Hardness Range	40 – 90 Shore A
Tensile Strength Range	3.45 – 17.24 MPa
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

Chemical Resistance

Acids, Dilute	Fair
Acids, Concentrated	Poor to Fair
Acids, Organic (Dilute)	Poor
Acids, Organic (Concentrated)	Poor
Acids, Inorganic	Fair
Alcohol's	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
Ethers	Poor
Fuel, Aliphatic Hydrocarbon	Excellent
Fuel, Aromatic Hydrocarbon	Poor to Good
Halogenated Solvents	Poor to Good
Hydrocarbon, Halogenated	Poor to Good
Ketones	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
Silicone Oil	Excellent
Solvent Resistance	Good

Thermal Properties

Low Temperature Range	-34°C to -18°C
Minimum for Continuous Use (Static)	-34°C
Brittle Point	-40°C
High Temperature Range	+177°C to + 204°C
Maximum for Continuous Use (Static)	+204°C

Environmental Performance

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

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.