



## **Rubber Material Selection Guide ACM or Polyacrylate Acrylic Rubber**

- |                                |                                |
|--------------------------------|--------------------------------|
| ■ Abbreviation                 | ACM                            |
| ■ ASTM D-2000 Classification   | DF, DH                         |
| ■ Chemical Definition          | Copolymer Ethyl Butyl Acrylate |
| ■ RRP Compound Number Category | 12-0000 Series                 |

### **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 |

### **Chemical Resistance**

- |                                 |              |
|---------------------------------|--------------|
| ■ Acids, Dilute                 | Fair         |
| ■ Acids, Concentrated           | Poor to Fair |
| ■ Acids, Organic (Dilute)       | Poor         |
| ■ Acids, Organic (Concentrated) | Poor         |
| ■ Acids, Inorganic              | Fair         |

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### ACM or Polyacrylate

### Acrylic Rubber

#### Chemical Resistance

■ 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
■ Fuel, Extended (Oxygenated)	Fair 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
■ Refrigerant Halofluorocarbons	R-11, R-12, R-13
■ Refrigerant Halofluorocarbons w/ Oil	R-11, R-12, R-13, R-22
■ Silicone Oil	Excellent
■ Solvent Resistance	Good



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### Thermal Properties

- |                                       |                      |
|---------------------------------------|----------------------|
| ■ Low Temperature Range               | - 30° F to 0° F      |
| ■ Minimum for Continuous Use (Static) | - 30° F              |
| ■ Brittle Point                       | - 40° F              |
| ■ High Temperature Range              | + 350° F to + 400° F |
| ■ Maximum 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 | Excellent         |
| ■ Radiation Resistance | Poor to Good      |
| ■ Steam Resistance     | Poor              |
| ■ Sunlight Resistance  | Good to Excellent |
| ■ Taste Retention      | Fair to Good      |
| ■ Weather Resistance   | Excellent         |
| ■ Water Resistance     | Excellent         |

For assistance in identifying the appropriate polymer or material, or to develop and formulate a polyacrylate / acrylic rubber compound to meet your specific application and performance requirements, please contact Robinson Rubber Products at e-mail: [sales@robinsonrubber.com](mailto:sales@robinsonrubber.com) or phone: +1-763-535-6737.

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