

# BMC 508

## Bulk Molding Compound

### PRODUCT DESCRIPTION

Glass fiber reinforced Polyester BMC suitable for high amperage circuit breakers and other high strength insulators. **Available in gray only**

### GENERAL

|                             |  |                             |                   |
|-----------------------------|--|-----------------------------|-------------------|
| <b>Material Status</b>      | • Commercial: Active   |                             |                   |
| <b>Availability</b>         | • North America<br>• Asia Pacific  | • Europe<br>• South America |                   |
| <b>Filler/Reinforcement</b> | • Glass Fiber and mineral filler   |                             |                   |
| <b>Features</b>             | • High impact strength   | • UL Recognized—File E69414 | • UL94-V0 @3.0 mm |
| <b>Processing Method</b>    | • This BMC product is generally intended to be compression or injection molded in matched metal die molds, typically at 300°F (150°C) and 500 to 1,000 psi (35-65 BAR) molding pressure. Strength values may be affected by the molding process. Only available in bulk. |                             |                   |
| <b>Resin</b>                | • Unsaturated Polyester Composite  |                             |                   |

| PHYSICAL                         | Typical       | Unit              | Test Method |
|----------------------------------|---------------|-------------------|-------------|
| Density                          | 1.82          | g/cm <sup>3</sup> | ASTM D792   |
| Mold Shrinkage (RT mold/RT part) | 0.0015-0.0025 | in/in             | ASTM D955   |
| Water Absorption, 24 hrs, 23°C   | 0.09          | %                 | ASTM D570   |
| Hardness, Barcol                 | 30-40         | Barcol Units      | ASTM D2583  |

| MECHANICAL (As molded) | Typical                 | Unit      | Test Method |
|------------------------|-------------------------|-----------|-------------|
| Tensile Strength       | 5,000-7,000 (34-48)     | psi (MPa) | ASTM D638   |
| Flexural Strength      | 19,000-23,000 (131-158) | psi (MPa) | ASTM D790   |
| Compressive Strength   | 20,000-25,000 (138-172) | psi (MPa) | ASTM D695   |

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| <b>IMPACT</b>                | <b>Typical</b>     | <b>Unit</b>    | <b>Test Method</b> |
|------------------------------|--------------------|----------------|--------------------|
| Izod Notched Impact Strength | 6.0-10.0 (320-534) | ft-lb/in (J/m) | ASTM D256          |

| <b>THERMAL</b>                      | <b>Typical</b> | <b>Unit</b> | <b>Test Method</b> |
|-------------------------------------|----------------|-------------|--------------------|
| Heat Deflection Temperature 264 PSI | 500+ (260+)    | °F (°C)     | ASTM D648          |
| UL RTI, Electrical                  | 130            | °C          | UL 746B            |
| UL RTI, Mechanical with Impact      | 130            | °C          | UL 746B            |
| UL RTI, Mechanical without Impact   | 130            | °C          | UL 746B            |

| <b>FLAMMABILITY</b> | <b>Typical</b>    | <b>Unit</b> | <b>Test Method</b> |
|---------------------|-------------------|-------------|--------------------|
| Flammability        | Pass 0.0591 (1.5) | in (mm)     | UL94 V-1           |
| Flammability        | Pass 0.1182 (3.0) | in (mm)     | UL94 V-0           |

| <b>ELECTRICAL</b>          | <b>Typical</b> | <b>Unit</b>       | <b>Test Method</b> |
|----------------------------|----------------|-------------------|--------------------|
| Dielectric Strength        | 456 (18)       | Volts/mil (kV/mm) | ASTM D149          |
| Arc Track Resistance       | 180+           | seconds           | ASTM D495          |
| Comparative Tracking Index | 500+           | volts             | ASTM D2303         |

UL File Number E69414



For additional information, please contact:

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