

Premi-Ject® 6100-18

Bulk Molding Compound

PRODUCT DESCRIPTION

Glass fiber reinforced Polyester BMC suitable for electrical and flame retardant applications.

GENERAL

| | | |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Material Status | • Commercial: Active | |
| Availability | • North America • Asia Pacific | • Europe • South America |
| Filler/Reinforcement | • Glass Fiber and mineral filler | |
| Features | • Good dimensional stability • UL Recognized—File E69414 | • Excellent thermal resistance • UL94-V0 @1.5 mm |
| Processing Method | • This BMC product is generally intended to be compression, injection or transfer 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. | |
| Resin | • Unsaturated Polyester Composite | |

| PHYSICAL | Typical | Unit | Test Method |
|----------------------------------|----------------|-------------------|--------------------|
| Density | 1.70-1.85 | g/cm ³ | ASTM D792 |
| Mold Shrinkage (RT mold/RT part) | 0.0015-0.0035 | in/in | ASTM D955 |
| CLTE, X-Y plane | 25 | ppm/°C | ASTM E831 |
| CLTE, Z plane | 35 | ppm/°C | ASTM E831 |
| Poisson's Ratio | 0.36 | | ASTM D638 |

| MECHANICAL (As cut) | Typical | Unit | Test Method |
|----------------------------|-----------------------------|-------------|--------------------|
| Tensile Modulus | 1.80 x 10 ⁶ (12) | psi (GPa) | ASTM D638 |
| Tensile Strength | 5,300 (37) | psi (MPa) | ASTM D638 |
| Flexural Modulus (RT) | 1.5 x 10 ⁶ (10) | psi (GPa) | ASTM D790 |
| Flexural Strength | 15,000 (100) | psi (MPa) | ASTM D790 |

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| IMPACT | Typical | Unit | Test Method |
|-----------------------------------|------------------|-------------------|--------------------|
| Izod Notched Impact Strength | 7 (375) | ft-lb/in (J/m) | ASTM D256 |
| Unnotched Impact Strength | 9.5 (510) | ft-lb/in (J/m) | ASTM D4812 |
| THERMAL | Typical | Unit | Test Method |
| Thermal Conductivity, 25°C | 0.3 | W/m-°K | ASTM E1461 |
| UL RTI, Electrical | 266 (130) | °F (°C) | UL 746C |
| UL RTI, Mechanical with Impact | 266 (130) | °F (°C) | UL 746C |
| UL RTI, Mechanical without Impact | 266 (130) | °F (°C) | UL 746C |
| FLAMMABILITY | Typical | Unit | Test Method |
| Flammability | Pass 0.060 (1.5) | in (mm) | UL94 V-0 |
| ELECTRICAL | Typical | Unit | Test Method |
| Dielectric Strength | 380 (15) | Volts/mil (kV/mm) | ASTM D149 |
| Arc Track Resistance | 180+ | seconds | ASTM D495 |
| Comparative Tracking Index | 600 | volts | ASTM D2303 |

UL File Number E69414



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