

Technical Data Sheet

Typical Application — Electrical/Flame Retardant

Premi-Ject® 6100-18 is a fiberglass reinforced thermoset bulk molding compound for electrical and flame retardant applications.

Key Features and Benefits:

- Good dimensional stability, including excellent thermal resistance.
- Pigmentable for molded-in color; best appearance with mold texture.
- Excellent property retention in cold and hot environments.
- Recognized by Underwriters Laboratories, File # E42524.
- Underwriters Laboratories 94-VO flame resistance at 1.5mm thickness.

| Typical Values. Mechanical values are for Specimens cut from Compression-Molded panels. | | | |
|---|-------------|---------------------------|-----------------|
| Properties | Test Method | Values (US) | Values (Metric) |
| Flexural Strength | ASTM D-790 | 15,000 psi | 100 MPa |
| Flexural Modulus | ASTM D-790 | 1.5 x 10 ⁶ psi | 10 GPa |
| Tensile Strength | ASTM D-638 | 5,300 psi | 37 MPa |
| Tensile Modulus | ASTM D-638 | 1.8 x 10 ⁶ psi | 12 GPa |
| Notched Izod | ASTM D 256 | 7 ft*lb/in | 375 Joules/m |
| Unnotched Impact | ASTM D 4812 | 9.5 ft*lb/in | 510 Joules/m |
| Comparative Tracking Index | ASTM D-2303 | 600 | 600 |
| UL Relative Thermal Index (electrical) | UL 746C | 266 deg F | 130 deg C |
| UL Relative Thermal Index (mechanical) | UL 746C | 266 deg F | 130 deg C |
| UL Relative Thermal Index (impact) | UL 746C | 266 deg F | 130 deg C |
| Flame Resistance | U.L. 94 V0 | Pass, 0.060 in | Pass, 1.5 mm |
| Dielectric Strength, KV/mm | ASTM D149 | 380 Volts/mil | 15 kV/mm |
| Arc resistance, seconds | ASTM D495 | 180+ sec | 180+ sec |

This BMC product is generally intended to be injection molded in matched metal die molds, typically at 300°F (150°C) and 500 to 1000 psi (35-65 BAR) molding pressure. Strength values may be affected by the molding process. Nominal values for polymerization shrinkage (0.0015 to 0.0035 in/in) and specific gravity (1.70 to 1.85) may be customized for individual applications. Contact your Premix sales representative for specific design recommendations.

Following physical characteristics are typical of this product:

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| CLTE, XY direction: 25 ppm/ deg C |
| CLTE, Z direction: 35 ppm/deg C |
| Thermal Conductivity: 0.3 W/m*deg K |
| Poisson's Ratio: 0.3 |

The values presented in this data sheet are typical values and are not to be interpreted as product specifications.

All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, expressed or implied.

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