

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 <sup>6</sup> psi	10 GPa
Tensile Strength	ASTM D-638	5,300 psi	37 MPa
Tensile Modulus	ASTM D-638	1.8 x 10 <sup>6</sup> 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:**

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