

Technical Data Sheet

Typical Application — Electrical/Flame Retardant

Premi-Glas® 3100-20 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	16,000 psi	110 MPa
Flexural Modulus	ASTM D-790	1.5 x 10 ⁶ psi	10 GPa
Tensile Strength	ASTM D-638	5,500 psi	38 MPa
Tensile Modulus	ASTM D-638	1.8 x 10 ⁶ psi	12 GPa
Notched Izod	ASTM D 256	8 ft*lb/in	425 Joules/m
Unnotched Impact	ASTM D 4812	10 ft*lb/in	530 Joules/m
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 compression or 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

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.

Last modified: 8/3/2009