

Technical Data Sheet

Typical Application — Electrical/Flame Retardant

Premi-Glas® 3101-22 is a fiberglass reinforced thermoset bulk molding compound for electrical circuit breakers, switchgear, and other applications where fire retardance is required.

Key Features and Benefits:

- Non-Halogen FR technology for regulatory compliance.
- Excellent dimensional stability and electrical properties.
- Recognized by Underwriters Laboratories, File #E42524.
- Outstanding flow and fill in Compression, Transfer, and Injection molding.
- Pigmentable for molded-in color, best appearance with mold texture.

| Typical Values. Mechanical values are for Specimens cut from Compression-Molded panels. | | | |
|---|-------------|----------------------------|-----------------|
| Properties | Test Method | Values (US) | Values (Metric) |
| Flexural Strength | ASTM D-790 | 17,000 psi | 117 MPa |
| Flexural Modulus | ASTM D-790 | 1.6 x 10 ⁶ psi | 11.0 GPa |
| Tensile Strength | ASTM D-638 | 4,800 psi | 33 MPa |
| Tensile Modulus | ASTM D-638 | 1.92 x 10 ⁶ psi | 13.2 GPa |
| Notched Izod | ASTM D 256 | 9 ft*lb/in | 480 Joules/m |
| Unnotched Impact | ASTM D 4812 | 11 ft*lb/in | 585 Joules/m |
| Flame Resistance | UL94-V0 | pass, 0.063" | pass, 1.6 mm |
| Flame Resistance | UL94-5V | pass, 0.102" | pass, 2.6 mm |
| 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 |
| Dielectric Strength, KV/mm | ASTM D149 | 450 Volts/mil | 18 kV/mm |
| Arc resistance, seconds | ASTM D495 | 210 sec | 210 sec |
| Heat Deflection Temperature, 264 psi | ASTM D792 | 400+ deg F | 200+ deg C |

This BMC product is generally intended to be compression, transfer 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 0.003 in/in) and specific gravity (1.80-1.95) 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 ² 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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