

Technical Data Sheet

Typical Application — Electrical/Flame Retardant

Premi-Glas® 2103-15 CR-SX is a fiberglass reinforced thermoset bulk molding compound for electrical and flame retardant applications.

**Key Features and Benefits:**

- Non-Halogen FR technology for regulatory compliance.
- Good dimensional stability, including excellent thermal resistance.
- Pigmentable for molded-in color; best appearance with mold texture.
- Recognized by Underwriters Laboratories, File # E42524.
- Underwriters Laboratories 94-VO flame resistance at 2.5mm 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  | 14,000 psi                | 95 MPa          |
| Flexural Modulus  | ASTM D-790  | 1.5x 10 <sup>6</sup> psi  | 10 GPa          |
| Tensile Strength  | ASTM D-638  | 5,000                     | 31 MPa          |
| Tensile Modulus   | ASTM D-638  | 1.8 x 10 <sup>6</sup> psi | 12 GPa          |
| Notched Izod  | ASTM D 256  | 6 ft*lb/in                | 320 Joules/m    |
| Unnotched Impact  | ASTM D 4812 | 8.5 ft*lb/in              | 450 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, 0.100 in            | Pass, 2.5 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.

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