

# Premi-Glas® 3101-20

Thermoset, Unspecified

Premix, Inc.

## Message:

Premi-Glas® 3101-20 is a fiberglass reinforced thermoset bulk molding compound for electrical circuit breakers, switchgear, and other applications where fire retardance is required.

| General Information                                     |                                    |                   |             |
|---------------------------------------------------------|------------------------------------|-------------------|-------------|
| Filler / Reinforcement                                  | Glass Fiber                        |                   |             |
| Additive                                                | Flame Retardant                    |                   |             |
| Features                                                | Flame Retardant                    |                   |             |
|                                                         | Good Dimensional Stability         |                   |             |
|                                                         | Good Electrical Properties         |                   |             |
|                                                         | Halogen Free                       |                   |             |
| Uses                                                    | Electrical/Electronic Applications |                   |             |
|                                                         | Switches                           |                   |             |
| UL File Number                                          | E42524                             |                   |             |
| Forms                                                   | BMC - Bulk Molding Compound        |                   |             |
| Processing Method                                       | Compression Molding                |                   |             |
|                                                         | Injection Molding                  |                   |             |
|                                                         | Resin Transfer Molding             |                   |             |
| Physical                                                | Nominal Value                      | Unit              |             |
| Specific Gravity                                        | 1.80 to 1.95                       | g/cm <sup>3</sup> |             |
| Molding Shrinkage - Flow                                | 0.15 to 0.30                       | %                 |             |
| Mechanical                                              | Nominal Value                      | Unit              | Test Method |
| Tensile Modulus                                         | 13000                              | MPa               | ASTM D638   |
| Tensile Strength                                        | 33.0                               | MPa               | ASTM D638   |
| Flexural Modulus                                        | 10300                              | MPa               | ASTM D790   |
| Flexural Strength                                       | 110                                | MPa               | ASTM D790   |
| Poisson's Ratio                                         | 0.30                               |                   |             |
| Impact                                                  | Nominal Value                      | Unit              | Test Method |
| Notched Izod Impact                                     | 430                                | J/m               | ASTM D256   |
| Unnotched Izod Impact                                   | 530                                | J/m               | ASTM D256   |
| Thermal                                                 | Nominal Value                      | Unit              | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | > 200                              | °C                | ASTM D648   |
| CLTE                                                    |                                    |                   |             |
| Flow <sup>1</sup>                                       | 2.5E-5                             | cm/cm/°C          |             |

| Transverse <sup>2</sup> | 3.5E-5        | cm/cm/°C |             |
|-------------------------|---------------|----------|-------------|
| Thermal Conductivity    | 0.30          | W/m/K    |             |
| RTI Elec                | 130           | °C       | UL 746      |
| RTI Imp                 | 130           | °C       | UL 746      |
| RTI Str                 | 130           | °C       | UL 746      |
| Electrical              | Nominal Value | Unit     | Test Method |
| Dielectric Strength     | 18            | kV/mm    | ASTM D149   |
| Arc Resistance          | 210           | sec      | ASTM D495   |
| Flammability            | Nominal Value | Unit     | Test Method |
| Flame Rating            |               |          | UL 94       |
| 1.60 mm                 | V-0           |          |             |
| 2.60 mm                 | 5V            |          |             |
| Injection               | Nominal Value | Unit     |             |
| Mold Temperature        | 150           | °C       |             |
| Injection Pressure      | 3.50 to 6.50  | MPa      |             |
| NOTE                    |               |          |             |
| 1.                      | XY Direction  |          |             |
| 2.                      | Z Direction   |          |             |

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