

## Technical Data Sheet

**Premi-Ject 6100-20**

Thermoset, Unspecified  
LyondellBasell Industries  
Engineering Plastics

**Product Description**

Premi-Ject® 6100-20 is a fiberglass reinforced thermoset bulk molding compound for electrical and flame retardant applications.

- 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.

**General**

|                        |                                          |                                                          |
|------------------------|------------------------------------------|----------------------------------------------------------|
| Material Status        | • Commercial: Active                     |                                                          |
| Availability           | • North America                          |                                                          |
| Filler / Reinforcement | • Glass Fiber                            |                                                          |
| Additive               | • Flame Retardant                        |                                                          |
| Features               | • Flame Retardant<br>• Good Colorability | • Good Dimensional Stability<br>• Medium Heat Resistance |
| Uses                   | • Electrical/Electronic Applications     |                                                          |
| UL File Number         | • E42524                                 |                                                          |
| Forms                  | • BMC - Bulk Molding Compound            |                                                          |

| Physical                                   | Nominal Value (English)           | Nominal Value (SI)             |             |
|--------------------------------------------|-----------------------------------|--------------------------------|-------------|
| Density / Specific Gravity                 | 1.70 to 1.85                      | 1.70 to 1.85 g/cm <sup>3</sup> |             |
| Mechanical                                 | Nominal Value (English)           | Nominal Value (SI)             | Test Method |
| Tensile Modulus (Compression Molded)       | 1.80E+6 psi                       | 12400 MPa                      | ASTM D638   |
| Tensile Strength (Compression Molded)      | 5500 psi                          | 37.9 MPa                       | ASTM D638   |
| Flexural Modulus (Compression Molded)      | 1.50E+6 psi                       | 10300 MPa                      | ASTM D790   |
| Flexural Strength (Compression Molded)     | 16000 psi                         | 110 MPa                        | ASTM D790   |
| Poisson's Ratio                            | 0.30                              | 0.30                           |             |
| Impact                                     | Nominal Value (English)           | Nominal Value (SI)             | Test Method |
| Notched Izod Impact (Compression Molded)   | 8.0 ft·lb/in                      | 430 J/m                        | ASTM D256   |
| Unnotched Izod Impact (Compression Molded) | 10 ft·lb/in                       | 530 J/m                        | ASTM D4812  |
| Thermal                                    | Nominal Value (English)           | Nominal Value (SI)             | Test Method |
| CLTE                                       |                                   |                                |             |
| Flow <sup>1</sup>                          | 1.4E-5 in/in/°F                   | 2.5E-5 cm/cm/°C                |             |
| Transverse <sup>2</sup>                    | 1.9E-5 in/in/°F                   | 3.5E-5 cm/cm/°C                |             |
| Thermal Conductivity                       | 2.1 Btu·in/hr/ft <sup>2</sup> /°F | 0.30 W/m/K                     |             |
| RTI Elec                                   | 266 °F                            | 130 °C                         | UL 746B     |
| RTI Imp                                    | 266 °F                            | 130 °C                         | UL 746B     |
| RTI Str                                    | 266 °F                            | 130 °C                         | UL 746B     |
| Electrical                                 | Nominal Value (English)           | Nominal Value (SI)             | Test Method |
| Dielectric Strength                        | 380 V/mil                         | 15 kV/mm                       | ASTM D149   |
| Arc Resistance                             | > 180 sec                         | > 180 sec                      | ASTM D495   |
| Comparative Tracking Index                 | 600 V                             | 600 V                          | ASTM D2303  |
| Flammability                               | Nominal Value (English)           | Nominal Value (SI)             | Test Method |
| Flame Rating (0.06 in (1.5 mm))            | V-0                               | V-0                            | UL 94       |

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### **Premi-ject 6100-20**

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| Injection          | Nominal Value (English) | Nominal Value (SI) |
|--------------------|-------------------------|--------------------|
| Mold Temperature   | 300 °F                  | 149 °C             |
| Injection Pressure | 500 to 1000 psi         | 3.45 to 6.89 MPa   |

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**Notes**

<sup>1</sup> XY Direction

<sup>2</sup> Z Direction

**Notes**

These are typical property values not to be construed as specification limits.

**Processing Techniques**

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

**Product Storage and Handling**

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

**Company Information**

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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