

Technical Data Sheet



Premi-glas 3101-10

Thermoset, Unspecified
LyondellBasell Industries
Engineering Plastics

Product Description

Premi-Glas® 3101-10 is a fiberglass reinforced thermoset bulk molding compound for electrical circuit breakers, switchgear, and other applications where fire retardance is required.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber
Additive	• Flame Retardant
Features	• Flame Retardant • Good Electrical Properties • Good Dimensional Stability • 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 (English)	Nominal Value (SI)	
Density / Specific Gravity	1.80 to 1.95	1.80 to 1.95 g/cm³	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.74E+6 psi	12000 MPa	ASTM D638
Tensile Strength	4790 psi	33.0 MPa	ASTM D638
Flexural Modulus	1.20E+6 psi	8300 MPa	ASTM D790
Flexural Strength	11500 psi	79.0 MPa	ASTM D790
Poisson's Ratio	0.30	0.30	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	3.5 ft·lb/in	190 J/m	ASTM D256
Unnotched Izod Impact	6.0 ft·lb/in	320 J/m	ASTM D4812
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	> 392 °F	> 200 °C	ASTM D648
CLTE			
Flow ¹	1.4E-5 in/in/°F	2.5E-5 cm/cm/°C	
Transverse ²	1.9E-5 in/in/°F	3.5E-5 cm/cm/°C	
Thermal Conductivity	2.1 Btu·in/hr/ft²/°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	460 V/mil	18 kV/mm	ASTM D149
Arc Resistance	220 sec	220 sec	ASTM D495
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 in (1.6 mm)	V-0	V-0	
0.10 in (2.6 mm)	5V	5V	

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Injection	Nominal Value (English)	Nominal Value (SI)
Mold Temperature	302 °F	150 °C
Injection Pressure	508 to 943 psi	3.50 to 6.50 MPa

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Notes

¹ XY Direction

² 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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