

Technical Data Sheet



Symterra iLD1

Thermoset, Unspecified
LyondellBasell Industries
Engineering Plastics

Product Description

SymTerra™ iLD1 is a fiberglass reinforced thermoset Thick Molding Compound for composite applications where weight savings is important.

- Ideal for automated Injection or Injection-Compression molding.
- Available with Renewable Resource Content
- TMC compounding process preserves glass integrity for strength vs BMC.
- Specific gravity of 1.2 for weight savings vs. standard composites
- Pigmentable with uniform color at low shrinkage

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber
Features	• Good Colorability • Low Density
Forms	• TMC - Thick Molding Compound
Processing Method	• Compression Molding • Injection Molding

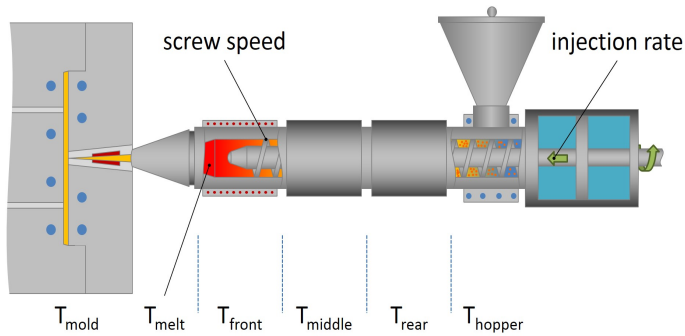
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.19	1.19 g/cm ³	
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% RH	0.30 %	0.30 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (Injection Molded)	1.00E+6 psi	6890 MPa	ISO 527-1
Tensile Stress ¹	5000 psi	34.5 MPa	ISO 527-2
Flexural Modulus			ISO 178
73°F (23°C), Injection Molded	1.00E+6 psi	6890 MPa	
302°F (150°C), Injection Molded	550000 psi	3790 MPa	
347°F (175°C), Injection Molded	480000 psi	3310 MPa	
Flexural Stress (Injection Molded)	12000 psi	82.7 MPa	ISO 178
Poisson's Ratio	0.33	0.33	Internal Method
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength			ISO 180
Injection Molded	8.6 ft·lb/in ²	18 kJ/m ²	
Unnotched Izod Impact Strength			ISO 180
Injection Molded	9.5 ft·lb/in ²	20 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature	390 °F	199 °C	ASTM D4065
CLTE			
Flow ²	1.1E-5 in/in/°F	1.9E-5 cm/cm/°C	
Transverse ³	3.1E-5 in/in/°F	5.6E-5 cm/cm/°C	
Thermal Conductivity	1.5 Btu·in/hr/ft ² /°F	0.21 W/m/K	

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Injection	Nominal Value (English)	Nominal Value (SI)
Mold Temperature	320 °F	160 °C
Injection Pressure	1000 psi	6.89 MPa

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Notes

¹ Injection Molded

² XY Direction

³ 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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