

Product Description

Glass Fiber reinforced Vinyl Ester TMC suitable for composite powertrain applications such as valve covers and timing gear covers.

General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber and Mineral Filler		
Features	• Excellent resistance to automotive Chemicals and salt spray	• Replaces cast metals for reduced Noise, Vibration and Harshness	• Excellent thermal properties and elevated temperature modulus retention
Processing Method	• This TMC product is generally intended to be compression molded in matched metal molds, typically at 300°F (150°C) and 500 to 1,000 psi (35-65 BAR) molding pressure. Strength values may be affected by the molding process.		
Resin	• Unsaturated vinyl ester		

Physical	Typical	Unit	Test Method
Density	1.80	g/cm ³	ASTM D792
Mold Shrinkage (RT mold/RT part)	0.0004	in/in	ASTM D955
CLTE, X – Y plane	25	ppm/°C	ASTM E831
CLTE, Z plane	35	ppm/°C	ASTM E831
Poisson's Ratio	0.27		ASTM D638
Mechanical (Injection Molded)	Typical	Unit	Test Method
Tensile Strength	6,000 (40)	psi (MPa)	ISO 527
Tensile Modulus	1.7 E+6 (12)	psi (GPa)	ISO 527
Flexural Modulus (RT)	1.5 E+6 (10)	psi (GPa)	ISO 178
Flexural Strength	11,500 (80)	psi (Mpa)	ISO 178
Impact	Typical	Unit	Test Method
Unnotched Impact Strength	10	ft-lb/in (J/m)	ISO 180
Thermal	Typical	Unit	Test Method
Heat Deflection Temperature 264 psi	>520 (>270)	°F (°C)	ISO 75
Glass Transition Tg	400 (204)	°F (°C)	ASTM D4065
Thermal Conductivity, 25°C	0.4	W/m-°K	ATSM E1461

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.

Company Information

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

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