Technical Data Sheet

Premi-Glas 1286

Engineered Composites

Product Description
Glass Fiber reinforced Polyester/Vinylester hybrid SMC suitable for automotive powertrain and other structural or semi-structural applications.

General		
Material Status	• Commercial: Active	
Availability	• North America	• South America
Filler / Reinforcement	• Glass Fiber and Mineral Filler	
Features	• Excellent thermal properties	• Excellent resistance to automotive chemicals and salt
Processing Method	• This SMC 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 Polyester/Vinylester	

Physical	Typical	Unit	Test Method
Density	1.82	g/cm^3	ASTM D792
Mold Shrinkage (RT mold/RT part)	0.001	in/in	ASTM D955
Water Absorption, 24 hrs., 24°C	0.1%	%	ISO 62
CLTE, X – Y plane	20	ppm/°C	ASTM E831
CLTE, Z plane	35	ppm/°C	ASTM E831
Poisson's Ratio	0.3		ASTM D638
Mechanical (As Cut)	**Typical**	**Unit**	**Test Method**
Tensile Modulus (RT)	2.0 E+6 (14)	psi (GPa)	ISO 527
Tensile Strength (RT)	12,000 (80)	psi (MPa)	ISO 527
Tensile Modulus (150°C)	1.35 E+6 (9.3)	psi (GPa)	ISO 527
Tensile Strength (150°C)	9,300 (64)	psi (MPa)	ISO 527
Flexural Modulus (RT)	1.9 E+6 (13)	psi (GPa)	ISO 178
Flexural Strength (RT)	29,000 (200)	psi (MPa)	ISO 178
Flexural Modulus (150°C)	1.2 E+6 (8)	psi (GPa)	ISO 178
Flexural Strength (150°C)	16,000 (108)	psi (MPa)	ISO 178
High Speed Impact, deflection at max load	0.19 (4.9)	in(mm)	ISO 6603-2
High Speed Impact, impact at max load	740 (3.3)	lbs. (KN)	ISO 6603-2
High Speed Impact, energy at max load	5.8 (7.8)	ft*lb. (Joules)	ISO 6603-2
High Speed Impact, total energy	13.9 (18.8)	ft*lb. (Joules)	ISO 6603-2
Impact	**Typical**	**Unit**	**Test Method**
Unnotched Impact Strength	25 (1350)	ft-lb/in (J/m)	ASTM D4812
Thermal	**Typical**	**Unit**	**Test Method**
Glass Transition T_g	410 (210)	°F (°C)	ISO 6721 DMS

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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