Premi-Glas® 1286

Sheet Molding Compound

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 die 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 Composite	

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, 23°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)	2.0×10^6 (14)	psi (GPa)	ISO 527
Tensile Strength (RT)	12,000 (80)	psi (MPa)	ISO 527
Tensile Modulus (150 Cº)	1.35×10^6 (9.3)	psi (GPa)	ISO 527
Tensile Strength (150 Cº)	9,300 (64)	psi (MPa)	ISO 527
Flexural Modulus (RT)	$1.9.x\ 10^6$ (13)	psi (GPa)	ISO 178
Flexural Strength (RT)	29,000 (200)	psi (MPa)	ISO 178
Flexural Modulus (150 Cº)	$1.2.x\ 10^6$ (8)	psi (GPa)	ISO 178
Flexural Strength (150 Cº)	16,000 (108)	psi (MPa)	ISO 178

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MECHANICAL (Cont.)	Typical	Unit	Test Method
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

For additional information, please contact:

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