

PremierLT™ L706S

Sheet Molding Compound

PRODUCT DESCRIPTION

Glass fiber reinforced Polyester SMC suitable for body panel, structural and semi-structural applications where excellent surface appearance, high strength, and durability are required in a low density composite.

GENERAL

Material Status	• Commercial: Active
Availability	• Currently compounded at Conneaut Ohio, USA • SMC capability to be established at ASI global facilities as demand develops
Filler/Reinforcement	• Glass fiber and mineral filler
Features	• Excellent mechanical properties • Weight savings vs. standard composites • Very good surface profile • Accepts automotive primers, paints, and adhesives • Standard colors are black (boundary samples required), gray, and unpigmented.
Processing Method	• Compression Molding, data presented are cut from molded plaques
Resin ID (ISO 1043)	• UP (GF+MD) 60 Unsaturated Polyester Composite

PHYSICAL	Typical	Unit	Test Method
Density (molded)	1.20	g/cm ³	ISO 1183/A
Shrinkage	-0.06 (Expansion)	%	ISO 2577
Moisture absorption	0.50	%	ISO 72/1
CLTE, Flow	13.0	µm/m °C	ISO 11359-2
CLTE, Cross-Flow	8.7	µm/m °C	ISO 11359-2
Poisson's Ratio	0.345		ISO 527-1/2

MECHANICAL	Typical	Unit	Test Method
Tensile Modulus	1.2E+6 (7,970)	psi (MPa)	ISO 527
Tensile Stress (Break)	9,720 (67)	psi (MPa)	ISO 527
Flexural Modulus, 22C, 0.5 mm deflect	9.8E+5 (6,750)	psi (MPa)	ISO 178/1
Flexural Modulus, 22C, 2.5 mm deflect	9.5E+5 (6,550)	psi (MPa)	ISO 178/1
Flexural Modulus, 150C, 0.5 mm deflect	6.0E+5 (4,150)	psi (MPa)	ISO 178/1
Flexural Modulus, 150C, 2.5 mm deflect	5.5E+5 (3,810)	psi (MPa)	ISO 178/1
Flexural Stress (Break)	20,015 (138)	psi (MPa)	ISO 178/1

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IMPACT	Typical	Unit	Test Method
Unnotched Izod Impact Strength	58.7	kJ/m ²	ISO 180/U
Multi Axial Instrumented Impact			ISO 6603-2 (2.2 m/s)
Maximum Load	596 (2,653)	lbf (N)	
Deflection to Maximum Load	0.19 (4.8)	in (mm)	
Energy to Maximum Load	4.5 (6.1)	ft lbf (J)	
Total Energy	21.4 (29)	ft lbf (J)	

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