

E100F50-M1

E100F50-M1 is a chopped fiber glass mat reinforced PP laminate with randomly oriented glass fibers, mineral filled. This product provides good flow properties, a very homogeneous fiber distribution and higher heat stabilization. It is commonly used for semi-structural applications.

Properties	Standard	SI Units		Engl. Units	
<u>Physical Properties</u>					
Laminate Thickness*	Internal	4.2	mm	0.165	in
Area Weight*	Internal	5628	g/m ²	1.153	lb/ft ²
Fiber Content**	ISO 1172 / PA_73, 78	50	%	50	%
Density (Laminate)*	ISO 1183 / PA_137	1.34	g/cm ³	0.0484	lb/in ³
Density (Molded)**	ISO 1183 / PA_138	1.38	g/cm ³	0.0499	lb/in ³
<u>Mechanical Properties</u> ^{3)**}					
Tensile Strength	ISO 527 / PA_098	140	MPa	20307	psi
Tensile Elongation at Break	ISO 527 / PA_098	2.3	%	2.3	%
Tensile Modulus	ISO 527 / PA_098	8300	MPa	1204	ksi
Flexural Strength	ISO 178 / PA_100	215	MPa	31186	psi
Flexural Modulus	ISO 178 / PA_100	8100	MPa	1175	ksi
Impact Strength -	IZOD (3.2mm)		J/m		ft*lb(wt)/in
	Charpy (4.0mm)	ISO 179-1/2fn / PA_97	120	kJ/m ²	57
Multiaxial Impact (4.0mm)					
Max. Load	ASTM D-3763		N		lb(wt)
Energy @ Max. Load			J		ft*lb
Energy @ Failure			J		ft*lb
Max. Load	ISO 6603-2 / PA_406	7900	N	1776	lb(wt)
Energy @ Max. Load		19	J	14	ft*lb
Energy @ Failure		36	J	27	ft*lb
<u>Processing Properties</u> **					
Molding Shrinkage	ISO 2577	0.12-0.23	%	0.12-0.23	%
<u>Special Properties</u> **					
Heat Deflection Temperature	ISO 75-2 / PA_350		°C		°F
Coefficient of Thermal Expansion	EN ISO 11403-2	20 - 30	10 ⁻⁶ /K	20 - 30	10 ⁻⁶ /K
Burning Rate	ISO 3795 / FMVSS302	<10	mm/min	<0.4	in/min

1) = measured in longitudinal direction

2) = measured in transverse direction

3) = crosswise molded

4) = lengthwise molded

* = Property was determined on the laminate

** = Property was determined on flat molded plaques

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