

E100F40-F1

E100F40-F1 is a chopped fiber glass mat reinforced PP laminate with randomly oriented glass fibers. This product provides good flow properties, a very homogeneous fiber distribution and higher heat stabilization. It is commonly used for semi-structural applications dashboard carriers.

Properties	Standard	SI Units		Engl. Units	
<u>Physical Properties</u>					
Laminate Thickness*	Internal	4.8	mm	0.189	in
Area Weight*	Internal	5712	g/m ²	1.170	lb/ft ²
Fiber Content**	ISO 1172 / PA_73, 78	38.8	%	38.8	%
Density (Laminate)*	ISO 1183 / PA_137	1.19	g/cm ³	0.0430	lb/in ³
Density (Molded)**	ISO 1183 / PA_138	1.23	g/cm ³	0.0444	lb/in ³
<u>Mechanical Properties</u>^{3)**}					
Tensile Strength	ISO 527 / PA_098	90	MPa	13055	psi
Tensile Elongation at Break	ISO 527 / PA_098	2.7	%	2.7	%
Tensile Modulus	ISO 527 / PA_098	5300	MPa	769	ksi
Flexural Strength	ISO 178 / PA_100	130	MPa	18857	psi
Flexural Modulus	ISO 178 / PA_100	5075	MPa	736	ksi
Impact Strength -	IZOD (3.2mm) Charpy (4.0mm)	ASTM D256 E	J/m		ft*lb(wt)/in
		ISO 179-1/2fn / PA_97	90	kJ/m ²	43
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	5400	N	1214	lb(wt)
Energy @ Max. Load		16	J	12	ft*lb
Energy @ Failure		42	J	31	ft*lb
<u>Processing Properties</u>**					
Molding Shrinkage	ISO 2577	0.2 - 0.3	%	0.2 - 0.3	%
<u>Special Properties</u>**					
Heat Deflection Temperature	ISO 75-2 / PA_350	155	°C	311	°F
Coefficient of Thermal Expansion	EN ISO 11403-2	15 - 25	10 ⁻⁶ /K	15 - 25	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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