

X140B118-C1

X140B118-C1 is a glass fabric reinforced PP laminate with randomly oriented glass fibers additionally. This product provides high mechanical values and a very homogeneous fiber distribution, low warpage tendency and an additional UV-stabilization (HALS). It is commonly used for large semi-structural applications in the non-automotive sector.

Properties	Standard	SI Units		Engl. Units	
Physical Properties					
Laminate Thickness*	Internal	1.8	mm	0.071	in
Area Weight*	Internal	2178	g/m ²	0.446	lb/ft ²
Fiber Content** random/oriented	ISO 1172 / PA_73, 78	40	%	40	%
Density (Laminate)*	ISO 1183 / PA_137	1.21	g/cm ³	0.0437	lb/in ³
Density (Molded)**	ISO 1183 / PA_138	1.24	g/cm ³	0.0448	lb/in ³
Mechanical Properties**					
Tensile Strength	ISO 527 / PA_098	1) 125 2) 50	MPa	1) 18131 2) 7253	psi
Tensile Elongation at Break	ISO 527 / PA_098	1) 1.30 2) 1.40	%	1) 1.30 2) 1.40	%
Tensile Modulus	ISO 527 / PA_098	1) 10200 2) 4700	MPa	1) 1479 2) 682	ksi
Flexural Strength	ISO 178 / PA_100	1) 130 2) 85	MPa	1) 18857 2) 12329	psi
Flexural Modulus	ISO 178 / PA_100	1) 3900 2) 3300	MPa	1) 566 2) 479	ksi
Impact Strength IZOD (1.8mm)	ASTM D256 E		J/m		ft*lb(wt)/in
Charpy (1.8mm)	ISO 179-1/2fn / PA_97	1) 75 2) 35	kJ/m ²	1) 36 2) 17	ft*lb/in ²
Multiaxial Impact (1.8mm)					
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	1600	N	360	lb(wt)
Energy @ Max. Load		5.0	J	3.7	ft*lb
Energy @ Failure		8.0	J	5.9	ft*lb
Processing Properties**					
Molding Shrinkage	ISO 2577	1) 0.26 2) 0.12	%	1) 0.26 2) 0.12	%
Special Properties**					
Heat Deflection Temperature	ISO 75-2 / PA_350	155	°C	311	°F
Coefficient of Thermal Expansion	EN ISO 11403-2	1) 20 2) 41	10 ⁻⁶ /K	1) 20 2) 41	10 ⁻⁶ /K
Burning Rate	ISO 3795 / FMVSS302	< 20	mm/min	< 0.4	in/min

- 1) = measured in longitudinal direction
 2) = measured in transverse direction

- * = Property was determined on the laminate
 ** = Property was determined on flat molded plaques

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