

Technical Datasheet

S153A248-M1

S153A248-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.

GENERAL PROPERTIES	Method	SI-Units	SI-Values
Thickness (laminate)	internal	mm	4.8
Area weight (laminate)	internal	g/m ²	6432
Fiber content (laminate)	ISO 1172 / PA_073, 078	%	52
Density (laminate)	ISO 1183 / PA_137	g/cm ³	1.34
Density (molded)*	ISO 1183 / PA_138	g/cm ³	1.40

MECHANICAL PROPERTIES CROSSWISE MOLDED*

Tensile strength	ISO 527 / PA_098	MPa	145
Tensile modulus	ISO 527 / PA_098	MPa	8600
Elongation at break	ISO 527 / PA_098	%	2.3
Flexural strength	ISO 178 / PA_100	MPa	210
Flexural modulus	ISO 178 / PA_100	MPa	8400
Impact strength (Charpy 4.0mm)	ISO 179-1/2fn / PA_097	kJ/m ²	125
Multiaxial impact max. load	ISO 6603-2 / PA_406	N	7900
Multiaxial impact energy at max. load	ISO 6603-2 / PA_406	J	19
Multiaxial impact total energy	ISO 6603-2 / PA_406	J	37

PROCESSING PROPERTIES*

Molding shrinkage	ISO 2577	%	0.1 - 0.2
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THERMAL PROPERTIES

Heat deflection temperature*	ISO 75-2A / PA_350	°C	160
Melting point	ISO 11357-3 / PA_1047	°C	165
Oxidation stability at 140 °C (Laminate)	DIN 53383	h	≥ 1000
Oxidation stability at 140 °C (molded)*	DIN 53383	h	≥ 1000
Coeff. of thermal expansion* -40°C to +25°C	DIN 53752-A	10 ⁻⁶ /K	25 - 27
Coeff. of thermal expansion* +25°C bis +80°C	DIN 53752-A	10 ⁻⁶ /K	16 - 27

SPECIAL PROPERTIES

Burning rate (semi finished product)	ISO 3795 / FMVSS302	mm/min	< 10 (C)
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Additional Information

DIN EN ISO 11357-3	Laminate, 1. Heat, melting point of Polypropylen
DIN 53383	Plates heated with IR-heaters at 215 °C / 4 min.

MD = Machine Direction CD = Cross Direction
PD = Predominant Direction TD = Transverse Direction

* Property was determined on flat molded plaques

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