Tepex®

MATERIAL DATA SHEET



Tepex[®] dynalite 104-RG600(x)/47% Roving Glass - PP Consolidated Composite Laminate

Layup	Test Condition	According to Standard	Unit	Value	
				Longitudinal	Transversal
Fiber	-	-	-	E-Glass Roving	
Weaving style	-	DIN ISO 9354	-	Twill 2/2	
Area weight (dry fabric)	-	DIN EN 12127	g/m²	600	
Yarn	-	DIN EN 12654- 2/3	tex	1200	
Yarn density		DIN EN 1049-2	1/cm	2.5	2.5
Weight rate	-	-	%	50	50
Polymer	-	-	-	Polypropylene (PP)	
Fiber content (nominal)	-	-	vol%	4	7
Thickness per layer (nominal)	-	-	mm	0	.5
Laminate density		ISO 1183-1	g/cm³	1.	68

Mechanical properties	Test Condition	According to Standard	Unit	Value
Tensile modulus	23 °C, dry	ISO 527-4/5 ¹⁾	GPa	20
Tensile strength	23 °C, dry	ISO 527-4/5 ¹⁾	MPa	430
Tensile elongation at break	23 °C, dry	ISO 527-4/5 ¹⁾	%	2.7
Flexural modulus	23 °C, dry	ISO 14125 ²⁾	GPa	17
Flexural strength	23 °C, dry	ISO 14125 ²⁾	MPa	370

Thermal properties	Test Condition	According to Standard	Unit	Value
Melting temperature	10 K/min	ISO 11357-3	°C	165
Heat deflection temperature ³⁾	17 GPa	ISO 75-1/-3	°C	157
Coefficient of linear thermal expansion	-35 °C to 23 °C, dry	ISO 11359-1/2	E-6/K	13.3
Coefficient of linear thermal expansion	23 °C to 80 °C, dry	ISO 11359-1/2	E-6/K	11.0



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Legend

-: Not relevant

dry: dry as manufactured

1) Test specimen (250 x 25 x 2) mm 2) Test specimen (80 x 25 x 2) mm

3) Based on ISO 75-1/-3

The values in the datasheet are for this specific composition only, the characteristics of composites depend on the reinforcement level and the fiber orientation. Non-standard thickness may also alter some or all of these properties. The data listed here fall within the normal range of product properties, but they should not be used to establish specification limits nor used alone as basis of design. The underlying tests were conducted at room temperature and with 2 mm specimen thickness.

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