

Tepex® dynalite 202-C200(x)/50%
Carbon - PA6 Consolidated Composite Laminate

Layup	Test Condition	According to Standard	Unit	Value	
				Longitudinal	Transversal
Fiber	-	-	-	Carbon	
Weaving style	-	DIN ISO 9354	-	Twill 2/2	
Area weight (dry fabric)	-	DIN EN 12127	g/m ²	200	
Yarn	-	DIN EN 12654-2/3	K	3	
Yarn density	-	DIN EN 1049-2	1/cm	5	5
Weight rate	-	-	%	50	50
Polymer	-	-	-	Polyamide 6 (PA6)	
Fiber content (nominal)	-	-	vol.-%	51	
Thickness per layer (nominal)	-	-	mm	0.22	
Laminate density	-	ISO 1183-1	g/cm ³	1.46	

Mechanical properties	Test Condition	According to Standard	Unit	Value
Flexural modulus	23 °C, ISO 1110	ISO 14125 ²⁾	GPa	39
Flexural strength	23 °C, ISO 1110	ISO 14125 ²⁾	MPa	500
Flexural modulus	23 °C, dry	ISO 14125 ²⁾	GPa	48
Flexural strength	23 °C, dry	ISO 14125 ²⁾	MPa	780

Thermal properties	Test Condition	According to Standard	Unit	Value
Melting temperature	10 K/min	ISO 11357-3	°C	220
Heat deflection temperature ³⁾	48 GPa	ISO 75-1/-3	°C	205
Coefficient of linear thermal expansion	-35 °C to 23 °C, dry	ISO 11359-1/2	E ⁻⁶ /K	4.8
Coefficient of linear thermal expansion	23 °C to 80 °C, dry	ISO 11359-1/2	E ⁻⁶ /K	3.2

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- :	Not relevant
dry:	dry as manufactured
ISO 1110:	Conditioned acc. to ISO 1110, 70 °C, 62 % RH, equilibrium
2)	Test specimen (80 x 25 x 2) mm
3)	Based on ISO 75-1/-3

® Bond-Laminates registered trademark

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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Caution: Do not use this product in medical applications involving permanent implantation in human body.