Tepex® *dynalite* 201-C200(x)/50%

Carbon - PA66 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/m²	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 66 (PA66)	
Fiber content (nominal)	-	-	vol.-%	51	
Thickness per layer (nominal)	-	-	mm	0.22	
Laminate density		ISO 1183-1	g/cm³	1.46	

Mechanical properties	Test Condition	According to Standard	Unit	Value	
				Longitudinal	Transversal
Tensile modulus	23 °C, dry	ISO 527-4/5[1)]	GPa	55	
Tensile strength	23 °C, dry	ISO 527-4/5[1)]	MPa	700	
Tensile elongation at break	23 °C, dry	ISO 527-4/5[1)]	%	1.5	
Flexural modulus	23 °C, ISO 1110	ISO 14125[2)]	GPa	43	
Flexural strength	23 °C, ISO 1110	ISO 14125[2)]	MPa	650	
Flexural modulus	23 °C, dry	ISO 14125[2)]	GPa	48	
Flexural strength	23 °C, dry	ISO 14125[2)]	MPa	840	

Phone: +49 (0)2961 96628-0 | Fax: +49 (0)2961 96628-80 | info@bond-laminates.de
www.tepex.com | www.bond-laminates.com

Tepex® *dynalite* 201-C200(x)/50%

Carbon - PA66 Consolidated Composite Laminate

Thermal properties	Test Condition	According to Standard	Unit	Value	
				Longitudinal	Transversal
Melting temperature	10 K/min	ISO 11357-3	°C	260	
Heat deflection temperature[3)]	48 GPa	ISO 75-1/-3	°C	250	
Coefficient of linear thermal expansion	-35 °C to 23 °C, dry	ISO 11359-1/2	E^{-6}/K	4.5	
Coefficient of linear thermal expansion	23 °C to 80 °C, dry	ISO 11359-1/2	E^{-6}/K	4.7	

Legend

- :	Not relevant
dry:	dry as manufactured
ISO 1110:	Conditioned acc. to ISO 1110, 70 °C, 62 % RH, equilibrium
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

® 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 fibre 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.

This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided - especially that contained in our safety data and technical information sheets - and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold and our advisory service is given in accordance with the current version of our General Conditions of Sale and Delivery.

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

Phone: +49 (0)2961 96628-0 | Fax: +49 (0)2961 96628-80 | info@bond-laminates.de
www.tepex.com | www.bond-laminates.com