

Results

The density was measured according to ASTM D792A. 3 samples were measured.

The flexural properties of the test laminates were determined according to ASTM D 790 standard, test method I (3-point loading), span to depth ratio 16 (L=200 mm), specimen dimensions: 13 x 12.3 x 230 mm, test speed 5.3 mm/minute.

The tensile properties of the test laminates were determined according to ASTM D 638 standard, specimen type I, width of narrow part = 13 mm, length overall = 160 mm, thickness 5 mm. Test speed = 1 mm/minute for determining of modulus of elasticity and 5 mm/minute until break. The modulus of elasticity was calculated at 0.00 – 0.15 % elongation.

The impact properties of the material was determined according to ISO 179 standard (Charpy). Machined 4 x 10 x 80 mm unnotched test pieces were tested edgewise, the support span was 62 mm.

The Barcol hardness was measured according to ASTM D2583. Ten measurements were performed on the top side of the sample.

The linear thermal expansion was measured according to ASTM D696 standard at 0°- 60°C temperature.

	Method	Result
Density	ASTM D792A	1,41 ± 0,01 g/cm ³
Flexural strength	ASTM D 790	36,3 ± 2,6 MPa
Modulus of elasticity (flexural)	ASTM D 790	4810 ± 50 MPa
Tensile strength	ASTM D 638	16,1 ± 3,1 MPa
Modulus of elasticity (tensile)	ASTM D 638	4780 ± 260 MPa
Elongation at break	ASTM D 638	0,3 ± 0.1 %
Impact resistance (Charpy)	ISO 179	1,7 ± 0,5 KJ/m ²
Barcol Hardness	ASTM D2583	46 ± 2
Linear Thermal Expansion coefficient	ASTM D696	72 x 10 ⁻⁶ (0,0072 %/°C)