



DragonPlate™

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Material Specifications



Carbon Fiber Balsa Core

Our carbon fiber balsa core laminate offers a very high strength and stiffness to weight ratio. End grain balsa provides exceptionally high shear, tensile and compressive strengths. The lay-up design is quasi-isotropic, symmetrical, and balanced with carbon on each side of the end grain balsa core. Available in gloss, matte or texture on one side and texture on other side for bonding to other surfaces.

STANDARD CORES

CORE THICKNESS	LAMINATE THICKNESS	CUT SIZE TOLERANCE	ESTIMATED WEIGHT (lbs/ft²)*
1/4" ± 0.020	~ 0.31"	+ 0.5" / -0	0.68
3/8" ± 0.020	~ 0.44"	+ 0.5" / -0	0.74
1/2" ± 0.020	~ 0.55"	+ 0.5" / -0	0.90

* Weight varies with core density

Available in Various Sizes

Finish: Textured, gloss, or matte / Textured

Additional Options

- Custom Sizes
- Custom Laminates
- Custom Thickness
- CNC Machining
- Design and Engineering Services

TECHNICAL SPECIFICATIONS

Properties of Carbon Fiber

Tensile Strength: 512 ksi
Tensile Modulus: 33.4 Msi

Properties of Balsa Core

Compressive Strength : 1870 psi
Compressive Modulus: 590000 psi
Tensile Strength: 1900 psi
Density: 7-12 lb/ft³
Shear Strength: 432 psi
Shear Modulus: 23100 psi

Resin

Epoxy resin that accounts for approximately 50% of the composition

$W_f \approx 50\%$

Lay Up Schedule

3 Layers Plain Weave Carbon Fiber
End Grain Balsa Core
3 Layers Plain Weave Carbon Fiber