



DragonPlate™

.com

Material Specifications



Carbon Fiber Gurit Foam Core

DragonPlate carbon fiber Gurit PVC40 foam core is a unique closed cell, cross-linked polymer foam core. This is a lightweight structural foam that has good impact strength. While great for high strength applications which require a low panel weight, this is a carbon fiber foam core laminate that can resist crushing forces and supply an adequate mounting surface. The lay-up design is quasi-isotropic, consisting of three layers of carbon fiber on each side of a Gurit foam core center. 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	~ 0.32"	+ 0.5"/-0	0.48
1/2" ± 0.020	~ 0.57"	+ 0.5"/-0	0.52
1" ± 0.020	~ 1.07"	+ 0.5"/-0	0.63

* 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 Airex C70-40 Foam Core

Compressive Strength : 75 psi
Compressive Modulus: 5366 psi
Tensile Strength: 103 psi
Tensile Modulus: 9863 psi
Density: 2.5 lb/ft³
Shear Strength: 68 psi
Shear Modulus: 2175 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
PVC40 Gurit Foam
3 Layers Plain Weave Carbon Fiber