

APEX Carbon Honeycomb Core

STRENGTH

The unique manufacturing process allows for high strength and modulus at low densities.

RESILIENCE

The carbon fiber and epoxy combination resists moisture creating a stable structure in harsh environments.

FORMABILITY

The unique cellular geometry allows APEX Carbon Core to conform to curved surfaces.

- ✓ Designed to *survive the toughest environments*, APEX Carbon Core utilizes advanced high temperature materials oriented in a unique way to provide unchallenged performance.
- ✓ Utilizing an open weave carbon fabric creates natural cell to cell venting. *No secondary perforation or slitting* is needed.
- ✓ The carbon fiber enables drastically *increased stiffness* resulting in minimal deflection in the finished structure.
- ✓ APEX Carbon Core *resists water and corrosion* in a way that Aramid and aluminum cores cannot.
- ✓ The *near zero CTE* makes APEX Carbon Core perfect for precision structures subjected to a wide temperature range.

Standard Thickness 0.125"-3"

Standard Sheet Size 48" x 96"

For custom thickness and sheet sizes please inquire

MECHANICAL PROPERTIES

PROPERTY	TYPICAL RESULT**	TEST METHOD
Density (Nominal)	4.4 PCF (Nominal)	ASTM C271
Glass Transition Temperature (DMA Tg) 375°F Post Cure	428°F	ASTM D7028
Glass Transition Temperature (DMA Tg) 375°F Post Cure	310°F	ASTM D7028
Compression Strength*	480psi	ASTM C365
Shear Strength L-Direction*	270 psi	ASTM C 273
Shear Strength W-Direction*	140 psi	ASTM C 273
Shear Modulus L-Direction*	50 ksi	ASTM C 273
Shear Modulus W-Direction*	12 ksi	ASTM C 273
Water Absorption	1.20%	ASTM C 272
Max Radius of Curvature*	5 inches	N/A

* Tested at 0.5-inch thickness. ** Properties are nominal and may differ for specific lots

