



APEX Carbon Core

A new **cellular core** material for **high performance** structures.



STRENGTH

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



RESILIENCE

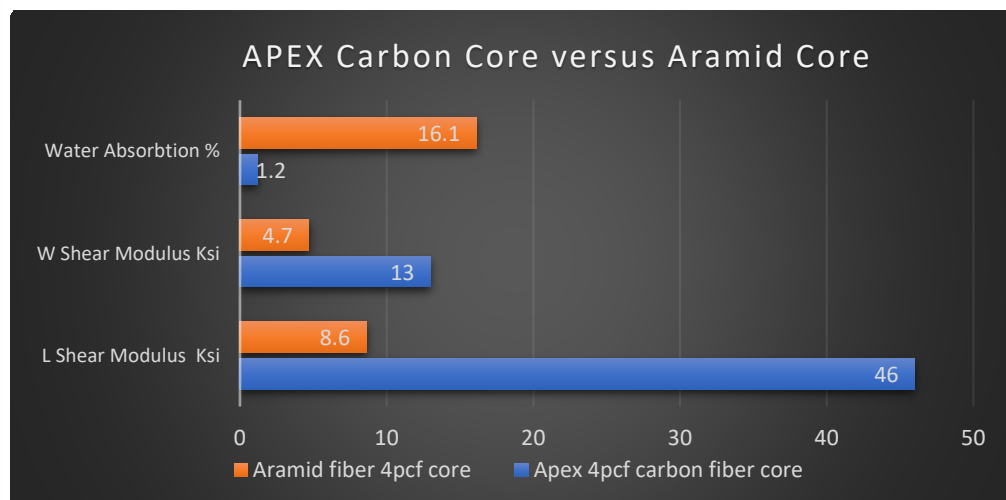
The carbon fiber and epoxy combination resists moisture creating a stable structure in harsh environments



FORMABILITY

The unique cellular geometry allows **APEX** 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** core resists water and corrosion in a way that Aramid and aluminum cores cannot.
- The near zero CTE makes **APEX** core perfect for precision structures subjected to a wide temperature range.

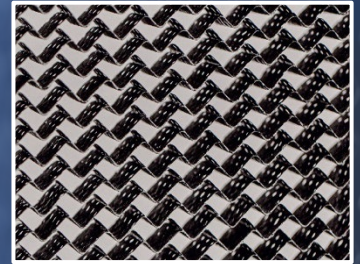


Mechanical Properties

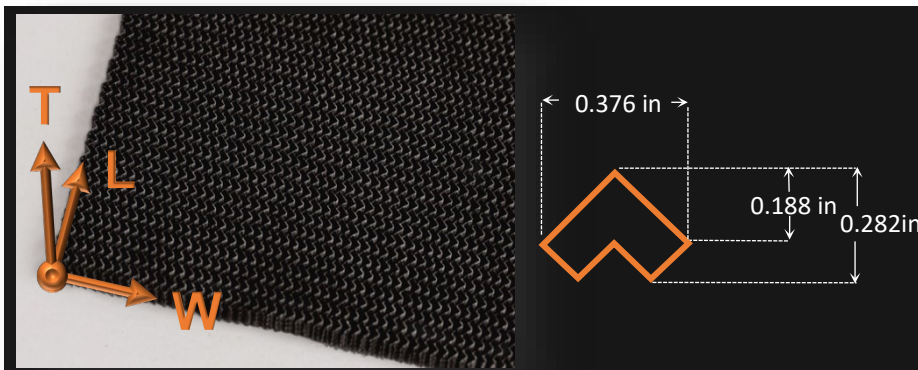
Examination or Test	Typical Result**	Test Method
Density	4.1 lb/ft ³	ASTM C271
Glass Transition Temperature (DMA Tg)	428°F	ASTM D7028
Compression Strength*	541 psi	ASTM C365
Shear Strength*		
L-Direction	286 psi	ASTM C 273
W-Direction	161 psi	
Shear Modulus*		
L-Direction	46.4 ksi	ASTM C 273
W-Direction	13.2 ksi	
Water Absorption	1.20%	ASTM C 272
Max. Radius of Curvature*	5 inches	NA

* Tested at 0.5-inch thickness

**Properties are nominal and may differ for specific lots



Size Chart and Geometry



APEX Carbon Core

Sheet Dimensions	Minimum (in)	Maximum (in)	Tolerance (in)
Thickness (T)	0.125	18	0.005
Length (L)	12	96	0.5
Width (W)	12	48	0.5

Manufactured by **Patz Materials and Technologies**

Direct Online sales at AdvancedCompositesMM.com
 For custom orders contact Orders@PatzMandT.com



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