

Carbon Fiber made with HexTow® AS4C - Aerospace

Carbon Fiber Tow is a continuous, high strength, high strain, PAN based fiber, that has been surface treated and is suitable as a reinforcement in small, high strength, low weight structures.

FIBER PROPERTIES

PROPERTY	3K	6K	12K
Tensile Strength	685 ksi	660 ksi	675 ksi
Tensile Modulus	33.5 Msi	33.5 Msi	33.5 Msi
Ultimate Elongation at Failure	1.8%	1.8%	1.8%
Weight/Length	11.2 x 10 ⁻⁶ lb/in	22.4 x 10 ⁻⁶ lb/in	44.8 x 10 ⁻⁶ lb/in
Approximate Yield	7,441 ft/lb	3,721 ft/lb	1,861 ft/lb
Tow Cross-Sectional Area	1.74 x 10 ⁻⁴ in ²	3.48 x 10 ⁻⁴ in ²	6.97 x 10 ⁻⁴ in ²
Filament Diameter	0.272 mil	0.272 mil	0.272 mil
Carbon Content	94.0%	94.0%	94.0%
Fiber Volume	60.0%	60.0%	60.0%
Density	0.0643 lb/in ³	0.0643 lb/in ³	0.0643 lb/in ³
Twist	Never Twisted	Never Twisted	Never Twisted



COMPOSITE PROPERTIES

PROPERTY	SAE/METRIC	TEST METHOD
0° Tensile Strength	340 ksi	ASTM D3039
0° Tensile Modulus	19.5 Msi	ASTM D3039
0° Tensile Strain	1.6%	ASTM D3039
0° Short Beam Shear Strength	18.1 ksi	ASTM D2344
0° Compressive Strength	256 ksi	ASTM Mod. D695
Open Hole Tensile Strength	50.6 ksi	ASTM D5766
Open Hole Compressive Strength	48 ksi	ASTM D6484

Note: Typical HexPly 8552 Composite Properties at Room Temperature.

PRODUCT GRADE

- HS-CP-4000 Hexcel Aerospace Grade

USES INCLUDE

- Weaving
- Prepregging
- Filament Winding
- Braiding
- Pultrusion

COMPATIBILITY

- Compatible with polyester, vinyl-ester and epoxy resins