

Carbon Fiber made with HexTow® AS4C - Industrial

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	650 ksi	650 ksi	650 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



PRODUCT GRADE

- HS-CP-3000 Hexcel Industrial Grade

USES INCLUDE

- Weaving
- Prepregging
- Filament Winding
- Braiding
- Pultrusion

COMPATIBILITY

- Compatible with polyester, vinyl-ester and epoxy resins

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

Carbon Fiber Ribbon (Tow)



Carbon Fiber Tow is a high strength, medium modulus carbon fiber tow, also referred to as a ribbon, loosely bonded together with an epoxy sizing to hold the fibers for handling and bonding purposes.

It is ideal for fabricating small, high strength, low weight structures and can be used to filament wind tubes or for compression molding applications. Carbon Fiber Tow is compatible with polyester, vinyl-ester and epoxy resins and wets out easily.

Physical Properties

Number of Filaments	3 thousand (3K)	6 thousand (6K)	12 thousand (12K)	50 thousand (50K)
Width	.0625"	.125"	.1875"	.500"
Material	Carbon Fiber	Carbon Fiber	Carbon Fiber	Carbon Fiber
Approx. Yield	7456 ft./lb.	3728 ft./lb.	1860 ft./lb.	410 ft./lb.

Technical Properties

Density	1.761 g/cc	1.76 g/cc	1.8 g/cc	1.8 g/cc
Tensile Strength	594 ksi	608 ksi	711 ksi	600 ksi
Tensile Modulus	32.9 msi	32.9 msi	33.4 msi	35 msi
Elongation	1.72%	1.80%	-	-

All the information contained in these properties is believed to be reliable. It is intended for comparison purposes only as each manufactured lot will exhibit variations. The user should evaluate the suitability of each product for their application. We cannot anticipate the variations in all end use and we make no warranties and assume no liability in connection with the use of this information.