



HexTow[®] AS4A

Carbon Fiber



Product Data Sheet

HexTow[®] AS4A carbon fiber is a continuous, high strength, high strain, PAN based fiber available in 12,000 (12K) filament count tows. This fiber has been surface treated and can be sized to improve its interlaminar shear properties, handling characteristics, and structural properties, and is suggested for use in prepregging, filament winding, braiding, and pultrusion.

Typical Fiber Properties	U.S. Units	SI Units
Tensile Strength	640 ksi	4413 MPa
Tensile Modulus (Chord 6000-1000)	33.5 Msi	231 GPa
Ultimate Elongation at Failure	1.7%	1.7%
Density	0.0647 lb/in ³	1.79 g/cm ³
Weight/Length (12K)	48.0 x 10 ⁻⁶ lb/in	0.858 g/m
Approximate Yield (12K)	1734 ft/lb	1.17 m/g
Tow Cross-Sectional Area (12K)	7.43 x 10 ⁻⁴ in ²	0.48 mm ²
Filament Diameter	0.280 mil	7.1 microns
Carbon Content	94.0%	94.0%
Twist	Never Twisted	Never Twisted

Carbon Fiber Certification

This carbon fiber is manufactured to Hexcel industrial specification HS-CP-3000. A copy of this specification is available upon request. A Certification of Conformance will be provided with each shipment.

Available Sizing

Sizing compatible with various resin systems, based on application are available to improve handling characteristics and structural properties. Please see additional information on available sizes on our website or contact our technical team for additional information.

Sizing

Size	Compatibility	Recommended Uses
GP	Epoxy, Phenolic, Vinyl Ester, Polyurethane, Cyanate Ester, BMI	Weaving, Filament Winding, Prepreg Tape
Unsize	All Resins	Prepreg Tape

**Compatibility with these Matrices is considered theoretically compatible. Hexcel cannot guarantee their results.*

Packaging

Standard packaging of HexTow[®] AS4A is as follows:

Filament Count	Sizing	Nominal Weight		Nominal Length	
		(lb)	(kg)	(ft)	(m)
12K	GP (1%)	10.0	4.5	17,340	5,290
	Unsize				

Other package sizes may be available on request. The fiber is wound on a 3-inch ID by 11-inch long cardboard tube and overwrapped with plastic film.

Safety Information

Obtain, read, and understand the Safety Data Sheet (SDS) before use of this product.



For more information

Hexcel is a leading worldwide supplier of composite materials to aerospace and industrial markets. Our comprehensive range includes:

- HexTow® carbon fibers
- HexForce® reinforcements
- HiMax® multiaxial reinforcements
- HexPly® prepregs
- HexAM® additive manufacturing
- HexMC® molding compounds
- HiFlow® RTM resins
- HexBond® adhesives
- HexTool® tooling materials
- HexWeb® honeycomb
- Acousti-Cap® sound attenuating honeycomb
- Engineered core
- Engineered products
- Polyspeed® laminates & pultruded profiles

For U.S. quotes, orders and product information call toll-free 1-800-688-7734. For other worldwide sales office telephone numbers and a full address list, please go to:

<http://www.hexcel.com/contact>

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