HexTow® AS4D
Carbon Fiber

HEXCEL®

Product Data Sheet

HexTow® AS4D 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	700 ksi	4,826 MPa
Tensile Modulus (Chord 6000-1000)	35.0 Msi	241 GPa
Ultimate Elongation at Failure	1.8%	1.8%
Density	0.0647 lb/in^3	1.79 g/cm^3
Weight/Length (12K)	42.8 x 10^{-6} lb/in	0.765 g/m
Approximate Yield (12K)	1,945 ft/lb	1.31 m/g
Tow Cross-Sectional Area (12K)	6.63 x 10^{-4} in^2	0.43 mm^2
Filament Diameter	0.265 mil	6.7 microns
Carbon Content	94.0%	94.0%
Twist	Never Twisted	Never Twisted

Typical HexPly 8552 Composite Properties (at Room Temperature)	U.S. Units	SI Units	Test Method
0º Tensile Strength	350 ksi	2,413 MPa	ASTM D3039
0º Tensile Modulus	21.4 Msi	145 GPa	
0º Tensile Strain	1.6%	1.6%	
0º Short Beam Shear Strength	18.5 ksi	128 MPa	ASTM D2344
0º Compressive Strength	260 ksi	1,793 MPa	ASTM Mod. D695
Fiber Volume	60%	60%	

Carbon Fiber Certification

This carbon fiber is manufactured to Hexcel aerospace grade specification HS-CP-4000. A copy of this specification is available upon request. A Certification of Analysis will be provided with each shipment of HS-CP-4000 fiber.

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.

Packaging

Standard packaging of HexTow® AS4D is as follows:

Filament Count	Nominal Weight		Nominal Length	
	(lb)	(kg)	(ft)	(m)
12K	8.0	3.6	15,570	4,740

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 Material Safety Data Sheet (MSDS) 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™ non-crimp fabrics
- HexPly® prepregs
- HexMC® molding compounds
- HexFlow® RTM resins
- Redux® adhesives
- HexTOOL® tooling materials
- HexWeb® honeycombs
- Acousti-Cap® sound attenuating honeycomb
- Engineered core
- Engineered products

For US quotes, orders and product information call toll-free 1-866-556-2662. For other worldwide sales office telephone numbers and a full address list, please go to:

http://www.hexcel.com/contact/salesoffice

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