



HexTow[®] IM9

Carbon Fiber

Product Data

HexTow[®] IM9 carbon fiber is a continuous, high performance, intermediate modulus, 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. It is suggested for use in prepregging and filament winding.

The unique properties of HexTow[®] IM9 fiber, such as higher tensile strength and modulus over IM7, as well as good shear strength, allow structural designers to achieve both higher safety margins for both stiffness and strength critical applications.

Typical Fiber Properties	U.S. Units	SI Units
Tensile Strength 12K	890 ksi	6,140 MPa
Tensile Modulus (Chord 6000-1000)	44 Msi	304 GPa
Ultimate Elongation at Failure 12K	1.9%	1.9%
Density	0.0650 lb/in ³	1.80 g/cm ³
Weight/Length 12K	18.8 x 10 ⁻⁶ lb/in	0.335 g/m
Approximate Yield 12K	4,443 ft/lb	2.99 m/g
Tow Cross-Sectional Area 12K	2.88 x 10 ⁻⁴ in ²	0.19 mm ²
Filament Diameter	0.175 mil	4.4 microns
Carbon Content	95.0%	95.0%
Twist	Never Twisted	Never Twisted

Typical HexPly 8552 Composite Properties (at Room Temperature)	U.S. Units	SI Units	Test Method
0° Tensile Strength	465 ksi	3,206 MPa	ASTM D3039
0° Tensile Modulus	25.5 ksi	176 GPa	
0° Flexural Strength	265 ksi	1,828 MPa	ASTM D790
0° Flexural Modulus	22.0 Msi	152 GPa	
0° Short Beam Shear Strength	18.0 ksi	124 MPa	ASTM D2344
Fiber Volume	60%	60%	

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**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.

Packaging

Standard packaging of HexTow® IM9 is as follows:

Filament Count	Nominal Weight		Nominal Length	
	(lb)	(kg)	(ft)	(m)
12K	2.0	0.9	8,890	2,710

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.

Important

Hexcel Corporation believes, in good faith, that the technical data and other information provided herein is materially accurate as of the date this document is prepared. Hexcel reserves the right to modify such information at any time. The performance values in this data sheet are considered representative but do not and should not constitute specification minima. The only obligations of Hexcel, including warranties, if any, will be set forth in a contract signed by Hexcel or in Hexcel's then current standard Terms and Conditions of Sale as set forth on the back of Hexcel's Order Acknowledgement.

For more information

Hexcel is a leading worldwide supplier of composite materials to aerospace and other demanding industries. Our comprehensive product range includes:

- Carbon Fiber
- RTM Materials
- Honeycomb Cores
- Carbon, Glass, Aramid and Hybrid Prepregs
- Structural Film Adhesives
- Honeycomb Sandwich Panels
- Engineered Core
- Reinforcement Fabrics

For US quotes, orders and product information call toll-free 1-866-556-2662 and 1-800-987-0658. For other worldwide sales office telephone numbers and a full address list, please click here: <http://www.hexcel.com/contact/salesoffices>