HexTow® IM8
Carbon Fiber

HexTow® IM8 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, filament winding, braiding, and pultrusion where additional strength and modulus are required over IM7.

Typical Fiber Properties	U.S. Units	SI Units
Tensile Strength	895 ksi	6170 MPa
Tensile Modulus (Chord 6000-1000)	44.1 Msi	304 GPa
Ultimate Elongation at Failure	1.9%	1.9%
Density	0.0647 lb/in^3	1.79 g/cm^3
Weight/Length (12K)	25.0 x 10^{-6} lb/in	0.446 g/m
Approximate Yield (12K)	3,337 ft/lb	2.24 m/g
Tow Cross-Sectional Area (12K)	3.86 x 10^{-4} in^2	0.25 mm^2
Filament Diameter	0.202 mil	5.1 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
0º Tensile Strength	430 ksi	2963 MPa	ASTM D3039
0º Tensile Modulus	26.2 Msi	181 GPa	
0º Tensile Strain	1.5%	1.5%	
0º Short Beam Shear Strength	18.5 ksi	128 MPa	ASTM D2344
0º Compressive Strength	258 ksi	1781 MPa	ASTM Mod. D695
Open Hole Tensile Strength	61.8 ksi	426 MPa	ASTM D5766
Open Hole Compressive Strength	42.6 ksi	293 MPa	ASTM D6484
Fiber Volume	60%	60%	

Carbon Fiber Certification
This carbon fiber is manufactured to Hexcel aerospace grade specification HS-CP-5000. A copy of this specification is available upon request. A Certification of Analysis 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
GS	Epoxy, Vinyl Ester, Polyurethane	Prepreg Tape

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

Packaging
Standard packaging of HexTow® IM8 is as follows:

Filament Count	Sizing	Nominal Weight		Nominal Length	
		(lb)	(kg)	(ft)	(m)
12K	GP (0.3%)	4.0	1.8	13,330	4,060
	GP (0.9%)				
	GS (0.5%)				

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

CTA 352 AG23