



# HexTow® IM2A

## Carbon Fiber



### Product Data Sheet

HexTow® IM2A carbon fiber is a continuous, high performance, intermediate modulus, PAN based fiber available in a 12,000 (12K) and a 6,000 (6K) 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 prepegging, filament winding, braiding, and pultrusion.

The unique properties of HexTow® IM2A fiber, such as higher tensile strength and modulus, as well as good shear strength, allow structural designers to achieve both higher safety margins for both stiffness and strength critical applications. HexTow® IM2A is International Monohull Open Class Association (IMOCA) certified/qualified.

Typical Fiber Properties	U.S. Units	SI Units
<b>Tensile Strength</b>		
6K	770 ksi	5310 MPa
12K	775 ksi	5343 MPa
<b>Tensile Modulus (Chord 6000-1000)</b>	40.0 Msi	276 GPa
<b>Ultimate Elongation at Failure</b>		
6K	1.8%	1.8%
12K	1.7%	1.7%
<b>Density</b>	0.0643 lb/in <sup>3</sup>	1.78 g/cm <sup>3</sup>
<b>Weight/Length</b>		
6K	12.5 x 10 <sup>-6</sup> lb/in	0.223 g/m
12K	25.0 x 10 <sup>-6</sup> lb/in	0.446 g/m
<b>Approximate Yield</b>		
6K	6,674 ft/lb	4.48 m/g
12K	3,337 ft/lb	2.24 m/g
<b>Tow Cross-Sectional Area</b>		
6K	1.94 x 10 <sup>-4</sup> in <sup>2</sup>	0.13 mm <sup>2</sup>
12K	3.89 x 10 <sup>-4</sup> in <sup>2</sup>	0.25 mm <sup>2</sup>
<b>Filament Diameter</b>	0.203 mil	5.2 microns
<b>Carbon Content</b>	95.0%	95.0%
<b>Twist</b>	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.



## Packaging

Standard packaging of HexTow<sup>®</sup> IM2A is as follows:

Filament Count	Sizing	Nominal Weight		Nominal Length	
		(lb)	(kg)	(ft)	(m)
6K	GP	5.0	2.3	33,330	10,160
12K	GP	8.0	3.6	26,670	8,130
	Unsize	4.0	1.8	13,350	4,070

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

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:

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

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