

## Hexcel® HexTow™ IM9 Carbon Fiber

Category : Carbon , Carbon Fiber

### Material Notes:

HexTow™ IM9 carbon fiber is a continuous, ultrahigh performance, intermediate modulus, PAN based fiber available in 12,000 (12K) filament count tows. The fiber has been surface treated and can be sized to improve its interlaminar shear properties, handling characteristics, and structural properties. HexTow™ IM9 fiber has shear properties equivalent to those of standard AS type fibers. It is suggested for use in weaving, braiding, prepregging and filament. The unique properties of HexTow™ IM9 fiber, such as ultrahigh tensile strength and good compressive strength, as well as good shear strength, allow structural designers to achieve both higher safety margins for both stiffness and strength critical applications. Information provided by Hexcel

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Hexcel-HexTow-IM9-Carbon-Fiber.php](http://www.lookpolymers.com/polymer_Hexcel-HexTow-IM9-Carbon-Fiber.php)

Physical Properties	Metric	English	Comments
Density	1.80 g/cc	0.0650 lb/in <sup>3</sup>	
Filament Diameter	4.4 μm	4.4 μm	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	3222 MPa	467300 psi	Typical epoxy composite property
	6140 MPa	891000 psi	Typical fiber property
Elongation at Break	1.9 %	1.9 %	Calculated from tow test data
Tensile Modulus	176 GPa	25500 ksi	Typical epoxy composite property
	304 GPa	44100 ksi	Typical fiber property; Chord 6000-1000
Flexural Modulus	152 GPa	22000 ksi	Typical epoxy composite property
Shear Strength	124 MPa	18000 psi	Typical epoxy composite property; short-beam

Component Elements Properties	Metric	English	Comments
Carbon, C	94 %	94 %	

Descriptive Properties	Value	Comments
Approximate Yield (m/g)	2.99	12K
Fiber Volume (%)	62	
Tow Cross-Sectional Area (mm <sup>2</sup> )	0.19	12K

Weight/Length (g/m) Descriptive Properties	0.335 Value	12K Comments
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## Contact Songhan Plastic Technology Co.,Ltd.

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