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.

<table>
<thead>
<tr>
<th>Typical Fiber Properties</th>
<th>U.S. Units</th>
<th>SI Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>880 ksi</td>
<td>6,067 MPa</td>
</tr>
<tr>
<td>Tensile Modulus (Chord 6000-1000)</td>
<td>45.0 Msi</td>
<td>310 GPa</td>
</tr>
<tr>
<td>Ultimate Elongation at Failure</td>
<td>1.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Density</td>
<td>0.0643 lb/in³</td>
<td>1.78 g/cm³</td>
</tr>
<tr>
<td>Weight/Length (12K)</td>
<td>25.0 x 10^-6 lb/in</td>
<td>0.446 g/m</td>
</tr>
<tr>
<td>Approximate Yield (12K)</td>
<td>3.337 ft/lb</td>
<td>2.24 m/g</td>
</tr>
<tr>
<td>Tow Cross-Sectional Area (12K)</td>
<td>3.89 x 10^-4 in²</td>
<td>0.25 mm²</td>
</tr>
<tr>
<td>Filament Diameter</td>
<td>0.203 mil</td>
<td>5.2 microns</td>
</tr>
<tr>
<td>Carbon Content</td>
<td>95.0%</td>
<td>95.0%</td>
</tr>
<tr>
<td>Twist</td>
<td>Never Twisted</td>
<td>Never Twisted</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Typical HexPly 8552 Composite Properties (at Room Temperature)</th>
<th>U.S. Units</th>
<th>SI Units</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>0º Tensile Strength</td>
<td>442 ksi</td>
<td>3,035 MPa</td>
<td>ASTM D3039</td>
</tr>
<tr>
<td>0º Tensile Modulus</td>
<td>26.3 Msi</td>
<td>182 GPa</td>
<td></td>
</tr>
<tr>
<td>0º Tensile Strain</td>
<td>1.5%</td>
<td>1.5%</td>
<td></td>
</tr>
<tr>
<td>0º Short Beam Shear Strength</td>
<td>19.2 ksi</td>
<td>132 MPa</td>
<td>ASTM D2344</td>
</tr>
<tr>
<td>0º Compressive Strength</td>
<td>256 ksi</td>
<td>1,765 MPa</td>
<td>ASTM Mod. D995</td>
</tr>
<tr>
<td>0º Open Hole Tensile Strength</td>
<td>64 ksi</td>
<td>440 MPa</td>
<td>ASTM D5766</td>
</tr>
<tr>
<td>Fiber Volume</td>
<td>60%</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>

**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.
Packaging
Standard packaging of HexTow® IM8 is as follows:

<table>
<thead>
<tr>
<th>Filament Count</th>
<th>Nominal Weight</th>
<th>Nominal Length</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(lb)</td>
<td>(kg)</td>
</tr>
<tr>
<td>12K</td>
<td>4.0</td>
<td>1.8</td>
</tr>
</tbody>
</table>

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.