Description
HexPly® 6376 is a high performance tough matrix formulated for the fabrication of primary aircraft structures. It offers high impact resistance and damage tolerance for a wide range of high temperature applications.

Benefits and Features
- Excellent toughness and damage tolerance
- Simple straight-up cure cycle
- Controlled matrix flow for ease of processing
- Effective translation of fibre properties
- Good hot/wet properties up to 150°C

Resin Matrix Properties

<table>
<thead>
<tr>
<th>Temperature °C</th>
<th>Viscosity/poise</th>
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<tbody>
<tr>
<td>10</td>
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<tr>
<td>65</td>
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<td>200</td>
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<table>
<thead>
<tr>
<th>Temperature °C</th>
<th>Gel Time (minutes)</th>
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<tr>
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<tr>
<td>160</td>
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<td>190</td>
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<td>200</td>
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Cured Matrix Properties (cured at 175°C)

- Tensile strength: 105 MPa  
- Tensile modulus: 3.60 GPa  
- Tensile strain: 3.1%  
- Flexural strength: 144 MPa  
- Flexural modulus: 4.4 GPa  
- Toughness $G_{IC}$: 432 J/m²  
- Cured density: 1.31 g/cm³

Method
- ISO R527 type 1  
- ISO 178

Tested in accordance with EGF Task Group on Polymers and Composites protocol.
Prepreg Curing Conditions
2 hours at 175°C and 700kN/m² (7 bar) pressure.
Heat up rate 2°C to 5°C.

Components up to 30 mm thick can be cured without a dwell in the schedule provided that the heat-up rate is not more than 3°C/minute. There is no deterioration in performance after 3 times the recommended cure schedule (verified by interlaminar shear strength tests).

Prepreg Storage Life
- Tack Life @ 23°C 10 days (still processable for up to 21 days).
- Guaranteed Shelf Life @ -18°C 12 months (maximum, from date of manufacture)
- Storage conditions.

HexPly® 6376 prepregs should be stored as received in a cool dry place or in a refrigerator. After removal from refrigerator storage, prepreg should be allowed to reach room temperature before opening the polythene bag, thus preventing condensation. (A full reel in its packaging can take up to 48 hours).

Precautions for Use
The usual precautions when handling uncured synthetic resins and fine fibrous materials should be observed, and a Safety Data Sheet is available for this product. The use of clean disposable inert gloves provides protection for the operator and avoids contamination of material and components.

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
- HexMC®-i molding compounds
- HexFlow® RTM resins
- HexBond™ adhesives
- HexTool® tooling materials
- HexWeb® honeycombs
- Acousti-Cap® sound attenuating honeycomb
- Engineered core
- Engineered products
- Polyspeed® laminates & pultruded profiles
- HexAM® additive manufacturing

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

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