



HexPly[®] 200

135°C curing phenolic matrix

Product Data

Description

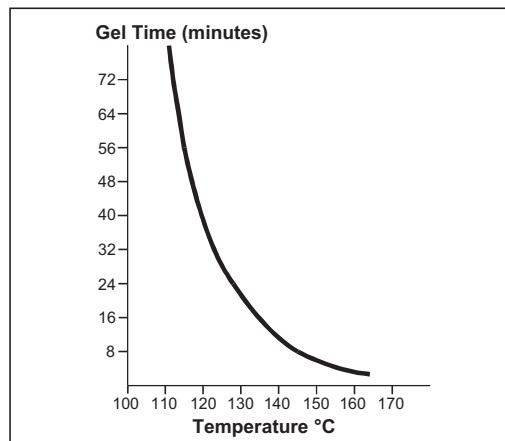
HexPly 200 is a phenolic resin used extensively in fire proof components such as engine cowlings, fire walls, rocket nozzles and exit gas cones. The low smoke density and very low toxicity during ignition meet the requirements of FAR 25 and ATS 1000-001 specifications. The HexPly 200 system has excellent ablative resistance and is available in fabric reinforcements and single tows.

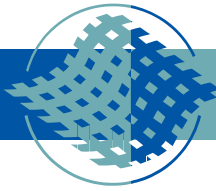
Benefits and Features

- High flow matrix.
- Excellent tack life, 60 days at 23°C.
- Versatile cure cycle 120 - 160°C.
- Self extinguishing.
- Excellent service temperature to 200°C.
- Good ablative properties.

Resin Matrix Properties

Gel Time





Fire Properties

| | | Method |
|--|------|-----------------------|
| Fire behaviour | Pass | FAR 25.853 apd F part |
| (on typical E glass 300 g/m ²) | Pass | I+III+IV+V |
| | | ATS 1000.001 Issue V |
| Cured resin density | 1.45 | |

Cured Prepreg Properties (cured at 150°C)

| | Method | | 200/40%/G1051 | 200/38%/644 | 200/40%/G803 |
|-----------------------------|-----------|---------------------------------|--|---|---|
| Reinforcement | | | High Strength 3K carbon, plain weave, 193 g/m ² | E glass, 8H satin, 305 g/m ² | High Strength 3K carbon, 5H satin, 285 g/m ² |
| Tensile Strength, MPa | pr EN2561 | Warp Weft | 750 - | 520 380 | 550 - |
| Tensile Modulus, GPa | pr EN2561 | Warp Weft | 70 - | - - | 58 - |
| Flexural Strength, MPa | pr EN2562 | Warp Weft | 950 - | 490 340 | 650 - |
| Flexural Modulus, GPa | pr EN2562 | Warp Weft | 65 - | 29 23 | 60 - |
| Inter Laminar Strength, MPa | pr EN2563 | Warp Warp 80°C Warp 100°C | 40 - | 40 21 | 35 - 28 |
| Compression Strength, MPa | DIN 65380 | Warp | - | 365 | - |

200/40%/G1051 results obtained with 60% fibre volume laminate

200/38%/644 results obtained with 50% fibre volume laminate

200/40%/G803 results obtained with 57% fibre volume laminate

Prepreg Curing Conditions

HexPly 200 system can be processed using various cycles, at a pressure between 3 and 7 bar, with a post cure at 160°C for 4 hours.

| Temperature (°C) | Time |
|------------------|--------|
| 135 | 90 min |
| 150 | 30 min |

Heat up rate 1-3°C/min

Prepreg Storage Life

- | | | |
|-------------------------|---------|-----------|
| ■ Tack life | @ 23°C | 30 days |
| ■ Guaranteed shelf life | @ -18°C | 12 months |

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.



Important

All information is believed to be accurate but is given without acceptance of liability. Users should make their own assessment of the suitability of any product for the purposes required. All sales are made subject to our standard terms of sale which include limitations on liability and other important terms.

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Hexcel is a leading worldwide supplier of composite materials to aerospace and other demanding industries. Our comprehensive product range includes:

- Carbon Fibre
- RTM Materials
- Honeycomb Cores
- Continuous Fibre Reinforced Thermoplastics
- Carbon, glass, aramid and hybrid prepregs
- Reinforcement Fabrics
- Structural Film Adhesives
- Honeycomb Sandwich Panels
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For US quotes, orders and product information call toll-free 1-800-688-7734

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