



HexPly[®] 200

135°C curing phenolic matrix



Product Data Sheet

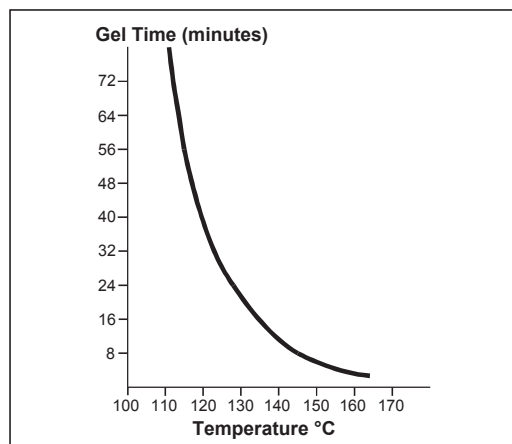
Description

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.

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





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Fire Properties

Fire behaviour	Pass
(on typical E glass 300 g/m ²)	Pass
Cured resin density	1.45

Method

FAR 25.853 apd F part
I+III+IV+V
ATS 1000.001 Issue V

Cured Prepreg Properties (cured at 150°C)

	Method		200/38%/644	200/40%/G803
Reinforcement			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	520 380	550 –
Tensile Modulus, GPa	pr EN2561	Warp Weft	– –	58 –
Flexural Strength, MPa	pr EN2562	Warp Weft	490 340	650 –
Flexural Modulus, GPa	pr EN2562	Warp Weft	29 23	60 –
Inter Laminar Strength, MPa	pr EN2563	Warp Warp 80°C Warp 100°C	40 21	35 – 28
Compression Strength, MPa	DIN 65380	Warp	365	–

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

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



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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 (maximum from date of manufacture)

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

For US 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:

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