



HexPly® EH04 Quick cure epoxy system for bladder molding or sheet wrap applications.

Product Data

Description

HexPly® EH04 is a modified epoxy resin system specifically designed for bladder molding or sheet wrap tube applications. Unique chemistry provides fully cured parts in only 3 minutes at 280°F (138°C).

Features

- Quick cure, 3 minutes at 280°F (138°C)
- Low viscosity, 10 poise at 230°F (110°C)
- Available in wide variety of carbon or glass tapes and fabrics.
- High temperature stability for hot de-mold.

Description

HexPly® EH04 is a modified epoxy resin system specifically designed for bladder molding or sheet wrap tube applications. Unique chemistry provides fully cured parts in only 3 minutes at 280°F (138°C)

Curing Conditions

- Sheet wrap
- Bladder molding

Cure Cycles

- 1) 3 minutes at 280°F (138°C)
- 2) 6 minutes at 260°F (127°C)
- 3) 10 minutes at 250°F (121°C)

Neat Resin Data

Specific Gravity	1.34	Fracture Toughness K_{Ic}	1.28 ksi \sqrt{in} (1.41 MPa \sqrt{m})
Tg (DMTA)	266°F (130°C)		
Tensile Strength	11.8 ksi (81 MPa)	Gel Time at 300°F	1.5 min
Tensile Modulus	0.50 msi (3.45 GPa)	Gel Time at 275°F	3.0 min
Tensile Strain	3.7%	Gel Time at 250°F	6.5 min

Applications

- Golf Shafts
 - Bladder molded
 - Sheet Wrap
- Bicycle Components
- Hockey Sticks
- Arrow Shafts
- Fishing Rods

Mechanical Properties

	AS4C 150 24" EH04 35%	MS40 120 24" EH04 31%	M35J 120 24" EH04 31%	IM4 120 24" EH04 31%	T24K 150 24" EH04 36%	F510 150 24" EH04 38%
Fiber	AS4C	MS40	M35J	IM4	T600	Fortafil 510
FAW (gsm)	150	120	120	120	150	150
Tensile Strength (ksi)	336	372	377	323	329	301
Tensile Modulus (msi)	18.1	26.7	26.5	21.1	17.1	18.9
Compression Strength (ksi)	218	233	219	222	240	219
Compression Modulus (msi)	16.9	24.3	23.8	20.0	17.8	17.5
Short Beam Shear (ksi)	12.2	12.2	12.2	12.4	12.9	12.6
Flexural Strength (ksi)	191	193	228	203	214	210
Flexural Modulus (msi)	16.9	24.0	29.7	19.2	16.5	18.6

1. Normalized to 55% fiber volume
2. 75°F, dry.

The data tested has been obtained from carefully controlled samples considered to be representative of the product described. Because the properties of this product can be significantly affected by the fabrication and testing techniques employed and since Hexcel does not control the conditions under which its products are tested and used, Hexcel cannot guarantee that the properties listed will be obtained with other processes and equipment.

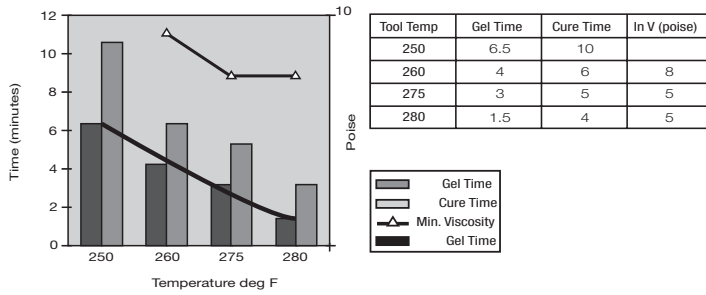
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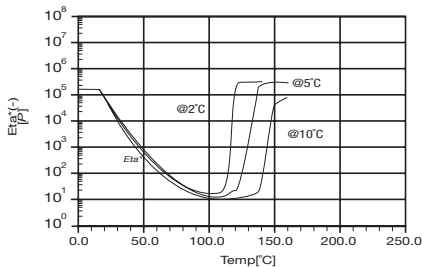




HexPly® EH04 Gel/Cure Time



HexPly® EH04 Resin Viscosity at Different Heat Up Rates



Storage

HexPly® EH04 should be stored in a sealed polyethylene bag and refrigerated, preferably below 0°F (-18°C). After removal from refrigerated storage, prepreg should be allowed to reach room temperature before opening the polyethylene bag, thus avoiding moisture condensation. Shelf life for HexPly® EH04 is 6 months at 0°F (-18°C) plus 14 days out time at 72°F (22°C).

Important

Hexcel Corporation believes, in good faith, that the technical data and other information provided herein is materially accurate as of the date this document is prepared. Hexcel reserves the right to modify such information at any time. The performance values in this data sheet are considered representative but do not and should not constitute specification minima. The only obligations of Hexcel, including warranties, if any, will be set forth in a contract signed by Hexcel or in Hexcel's then current standard Terms and Conditions of Sale as set forth on the back of Hexcel's Order Acknowledgement.

For more Information

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- Carbon Fiber
- RTM Materials
- Honeycomb Cores
- Continuous Fiber Reinforced Thermoplastics
- Carbon, Glass, Aramid and Hybrid Prepregs
- Structural Film Adhesives
- Honeycomb Sandwich Panels
- Special Process Honeycombs
- Reinforced Fabrics

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 click here: <http://www.hexcel.com/contact/salesoffices>.