



HexPly® M14

248°F (120°C) Curing Epoxy Matrix

Product Data

Description

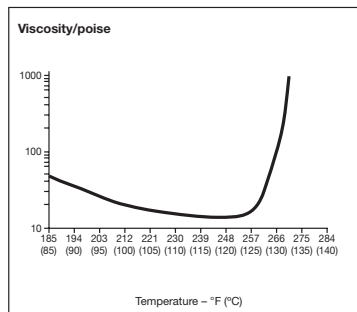
HexPly® M14 is a modified epoxy resin which provides good adhesion to honeycomb and foam cores. Its self-extinguishing characteristics meet the fire, smoke, and toxicity requirements of aerospace and railway specifications. HexPly® M14 can be used for very large industrial components subjected to severe environmental conditions.

Features

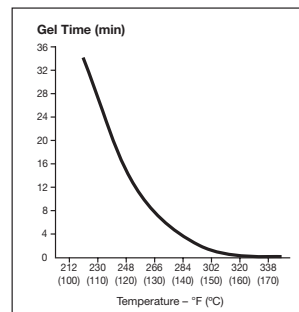
- Self Extinguishing
- Self Adhesive on Honeycomb and Foam
- Controlled Flow Matrix
- Excellent Tack Life
- Low Pressure Molding Capability (0.3–5 bar)
- Versatile Cure Regime 212–302°F (100–150°C)
- Good Impact Resistance

Resin Matrix Properties

Rheology



Gel Time



Cured Matrix Properties [cured at 248°F (120°C)]

Property	Value	Method
Tensile strength	70 MPa	ISO R527
Tensile modulus	3.2 GPa	ISO R527
Tensile strain	2.9%	ISO R527
Glass transition temperature	230–266°F (110–130°C)	DMA
Cured resin density	1.29 g/cm ³	
Fire behavior	Pass	FAR 25 853 apd F part 1
Typical glass prepreg 300 g/m ²	M2 F3	NF T 16.101

Prepreg Curing Conditions

The standard cure cycle is 60 min at 248°F (120°C), at a pressure between 0.3 and 5 bar. The following alternative cure cycles can be used:

Temperature °F (°C)	Time
212 (100)	6 hours
230 (110)	4 hours
248 (120)	1 hour
266 (130)	45 min
284 (140)	30 min
302 (150)	15 min

Heat-up rate 1–3°F (0.6–1.8°C).

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Storage

HexPly® M14 prepregs should be stored as received in a cool dry place or in a refrigerator. Following removal from refrigerated storage, allow the prepreg to reach room temperature before opening the polyethylene bag to avoid moisture condensation. (A full reel in its packaging can take up to 48 hours.)

Shelf Life

Shelf life	at 73°F (23°C)	30 days
Guaranteed shelf life	at 0°F (-18°C)	12 months

Handling and Safety Precautions

Hexcel recommends that customers observe established precautions for handling resins and fine fibrous materials. Operators working with this product should wear clean, impervious gloves to reduce the possibility of skin contact and to prevent contamination of the material.

Material Safety Data Sheets (MSDS) have been prepared for all Hexcel products and are available to company safety officers on request from your nearest Hexcel Sales Office.

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

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

- 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>.