



HexPly® M27

248°F (120°C) Curing Epoxy Matrix

Product Data

Description

HexPly® M27 is specifically designed for applications with fast curing cycles. It is ideally suited for high volume production techniques—in particular for ski manufacture. HexPly® M27 has been specially developed for UD-prepregs with high glass fiber weights, e.g., 1637–6548 lbs/ft² (500–2000 g/m²).

Features

- Suited to Press and Autoclave Manufacturing Methods
- Short Curing Cycles [Typically 12 min at 248°F (120°C)]
- Suitable for a Range of Pressure Cycles (1–10 Bar)
- Medium Flow for Ease of Processing
- No Tack
- No Volatiles
- Very Good Adhesive Properties to a Variety of Substrates (Aluminum, Steel, Wood, etc.)

Resin Matrix Properties

Gel time at 248°F (120°C) 5.5 min

Cured Matrix Properties

Glass transition temperature (T_g) 100 ± 8.3°F (5°C) 248°F (120°C) curing temperature

Prepreg Curing Conditions

The ideal cure cycle is 12 min at 248°F (120°C) at a pressure between 1 and 10 bar. The following alternative cure cycles can be used:

Temperature °F (°C)	Time
212 (100)	70 min
248 (120)	12 min
284 (140)	9 min



Shelf Life

Tack life	at 95°F (+35°C)	3 days
	at 73°F (+23°C)	5 days
Guaranteed shelf life	at 73°F (+23°C)	4 weeks
	at 0°F (-18°C)	12 months

Storage

HexPly® M27 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 48 hours.)

Handling and Safety Precautions

Hexcel recommends that customers observe established precautions for handling uncured synthetic 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>.