



# HexPly® NTT5

248°F (120°C) Curing Epoxy Matrix

## Product Data

### Description

HexPly® NTT5 is a modified epoxy matrix specifically designed for fast curing cycles. It is ideally suited for high volume production techniques, in particular for ski manufacture. HexPly® NTT5 is a highly versatile matrix, with a wide range of cure cycles, and is ideally suited to press, autoclave, and tube rolling manufacturing methods.

### Features

- Fast Curing Cycles [Typical 12 min at 248°F (120°C)]
- Good Flexibility and Handleability of Prepreg
- Versatile Cure Regime 185–356°F (85–180°C)
- Suitable for a Range of Pressure Cycles (0.3–10 Bar)
- Controlled Flow for Ease of Processing
- Excellent Adhesive Properties to a Wide Variety of Substrates

### Resin Matrix Properties

Gel time                      302°F (150°C)                      1.5 min

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

		Method
Tensile strength	90 MPa	ISO R527
Tensile modulus	4.08 MPa	ISO R527
Poisson's ratio	0.39	ISO R527 type 1
Flexural strength	165 MPa	ISO 178
Flexural modulus	3.53 GPa	ISO 178
Compression strength	270 MPa	ISO 604
Compression modulus	2.83 GPa	ISO 604
Glass transition temperature ( $T_g$ )	185–203°F (85–95°C)	230–266°F (110–130°C) curing temp.
	239–257°F (115–125°C)	320–356°F (160–180°C) curing temp.
Cured density	1.21 g/cm <sup>3</sup>	

### Prepreg Curing Conditions

The system is designed for processing flexibility. A typical cure cycle is 12 min at 248°F (120°C), at a pressure between 0.3 and 10 bar. The following alternative cure cycles can be used:

Temperature °F (°C)	Time
185 (85)	15 hrs
212 (100)	35 min
248 (120)	12 min
356 (180)	3 min

Performance testing should accompany alternative cure cycles to ensure suitability for the particular application.



## Storage

HexPly® NTT5 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

Tack life	at 73°F (23°C)	7 days
Out life	at 73°F (23°C)	3 weeks
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
- Reinforced fabrics
- Structural Film Adhesives
- Honeycomb Sandwich Panels
- Special Process Honeycombs
- Reinforced Fabrics

For further information, please contact your nearest sales office, or visit our website at [www.hexcel.com](http://www.hexcel.com)

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