

HexPly® M10/42%/200T2/CHS-3K

Epoxy Matrix

Product Data Sheet

Description

HexPly® M10/42%/200T2/CHS-3K is a woven High Strength Carbon Epoxy prepreg, whereby M10 is the resin type; 42% is the resin content by weight; 200T2 is the reinforcement reference and CHS-3K represents High Strength Carbon fibre. **This data sheet is complimentary to the M10 resin data sheet, which should be consulted for additional information.**

Reinforcement Data

Nominal Areal Weight	g/m ²	200	0°	90°
Composition			100	100
Fibre Type		Twill 2x2		
Nominal Fibre Density	g/cm ³	High Strength Carbon 3K		
		1.76		

Matrix Properties

Glass transition temperature of laminate (Cure Cycle : 60 min @ 120°C)	°C	125 (DMA onset, 5°C/min, 1Hz, 30µm)
Nominal Resin Density	g/cm ³	1.20

Prepreg Data

Nominal Areal Weight	g/m ²	345
Nominal Resin Content	weight %	42

Tack Level

Processing

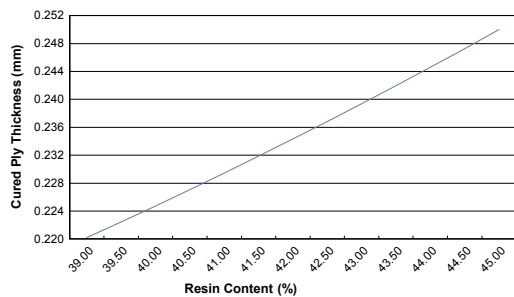
Cure Cycle		@ 85 °C	960 min
	or	@ 120 °C	60 min
	or	@ 150 °C	10 min
Recommended heat up rate		°C/min	3 - 5°C/min

Pressure (gauge) bar 0.3 to 5

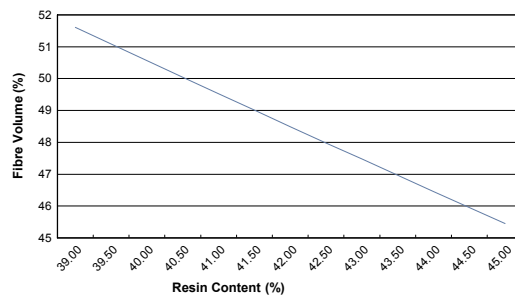
The optimum cure cycle, heat up rate and dwell period depend on part size, laminate construction, oven capacity and thermal mass of tool. (See prepreg technology brochure on our website for more information)

Cured Laminate Properties (nominal composite density 1.47 g/cm³)

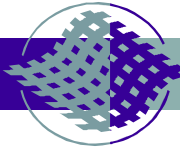
RESIN CONTENT % vs CURED PLY THICKNESS



RESIN CONTENT % vs FIBRE VOLUME %



The above graphs enable the fibre volume content of a laminate to be estimated using the measured cured ply thickness. The calculation assumes no resin loss.



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Prepreg Storage Life

- **Shelf Life(1)** : 18 months at -18°C/0°F (from date of manufacture)
- **Out Life(2)** : 60 days at Room Temperature
- **Tack Life (3)** : 60 days at Room Temperature

(1) Shelf Life : the maximum storage life for HexPly® prepreg, upon receipt by the customer, when stored continuously, in a sealed moisture-proof bag, at -18°C/0°F. To accurately establish the exact expiry date, consult the box label.

(2) Out Life : the maximum accumulated time allowed at room temperature between removal from the freezer and cure.

(3) Tack Life : the time, at room temperature, during which prepreg retains enough tack for easy component lay-up.

Prepreg should be stored as received in a cool dry place or in a refrigerator. After removal from refrigerator storage, prepreg should be allowed to reach room temperature before opening the polyethylene bag, thus preventing condensation. (A full reel in its packing can take up to 48 hours).

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.

Important

All information is believed to be accurate but is given without acceptance of liability. All users should make their own assessment of the suitability of any product for the purposes required. All sales are made subject to our standard terms of sale which include limitations on liability and other terms

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For more information

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:

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



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