

Hexcel® HexPly® M65 Bismaleimide Resin, Carbon Tape Form

Category : Polymer , Thermoset , Polyimide, TS

Material Notes:

Fiber: IM7-12K Information provided by HexCel

Order this product through the following link:

http://www.lookpolymers.com/polymer_Hexcel-HexPly-M65-Bismaleimide-Resin-Carbon-Tape-Form.php

Physical Properties	Metric	English	Comments
Density	1.56 g/cc	0.0564 lb/in³	Laminate
Volatiles	<= 2.0 %	<= 2.0 %	Prepreg

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	1579 MPa	229000 psi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Elongation at Yield	1.73 %	1.73 %	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Modulus	85.4 GPa	12400 ksi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Yield Strength	758 MPa	110000 psi	IM7 (12K); [0°, 90°]5s; Wet condition
	@Temperature 177 °C	@Temperature 351 °F	
	938 MPa	136000 psi	IM7 (12K); [0°, 90°]5s
	@Temperature 232 °C	@Temperature 450 °F	
	1172 MPa	170000 psi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Modulus	90.7 GPa	13200 ksi	IM7 (12K); [0°, 90°]5s; Wet condition
	@Temperature 177 °C	@Temperature 351 °F	
	92.7 GPa	13400 ksi	IM7 (12K); [0°, 90°]5s
	@Temperature 232 °C	@Temperature 450 °F	
	94.7 GPa	13700 ksi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Compressive Yield Strength	181 MPa	26300 psi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	696 MPa Metric	101000 psi English	Comments
	@Temperature 177 °C	@Temperature 351 °F	IM7 (12K); [90°, 0°]2s; Wet condition
	1048 MPa	152000 psi	IM7 (12K); [90°, 0°]2s
	@Temperature 232 °C	@Temperature 450 °F	
	1234 MPa	179000 psi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Shear Modulus	2.10 GPa	305 ksi	IM7 (12K); [+/- 45°]2s; In Plane; Wet condition
	@Temperature 177 °C	@Temperature 351 °F	
	3.10 GPa	450 ksi	IM7 (12K); [+/- 45°]2s; In Plane
	@Temperature 232 °C	@Temperature 450 °F	
	4.70 GPa	682 ksi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Shear Strength	41.0 MPa	5950 psi	IM7 (12K); [0°, 90°]5s; Short Beam; Wet condition
	@Temperature 177 °C	@Temperature 351 °F	
	58.7 MPa	8510 psi	IM7 (12K); [0°, 90°]5s; Short Beam
	@Temperature 232 °C	@Temperature 450 °F	
	72.0 MPa	10400 psi	IM7 (12K); [+/- 45°]2s; In Plane; Wet condition
	@Temperature 177 °C	@Temperature 351 °F	
	80.9 MPa	11700 psi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	82.0 MPa	11900 psi	IM7 (12K); [+/- 45°]2s; In Plane
	@Temperature 232 °C	@Temperature 450 °F	
	129 MPa	18700 psi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Descriptive Properties	Value	Comments
Cured Thickness per Ply (cm)	0.0137	Laminate
Dry Resin Content (%)	33	Prepreg
Fiber Volume (%)	59	Laminate

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