

## CIT HM124 12K M46J ER450G 36% 60CM

### PROPERTIES

<b>Dry Tape:</b>	<b>Unit</b>	<b>Typical Values</b>
Carbon Fiber	-	M46J 12K
Fiber Density	-	1.84
Areal Weight	g/cm <sup>3</sup>	124 (± 4%)
<b>Uncured Prepreg:</b>	<b>Unit</b>	<b>Typical Values</b>
Tack	-	Medium
Flow	%	6 (± 5%)
Out life @ 23°C	days	45
Storage life @ -18°C	months	12
Nominal area weight	g/m <sup>2</sup>	194
Nominal resin content	Wt %	36 (± 3%)
Volatile content	Wt %	< 1
Nominal width	mm	600
Laminate density*	g/cm <sup>3</sup>	1.56
Cured ply thickness*	mm	0.124

(\*) The tests were carried out @ 23°C and 60% R.H. on specimens cured in std conditions (dwell @ 135° for 120 minutes in autoclave. External pressure applied: 6 bar).

*Details provided in this document have been obtained from carefully controlled samples; data are an overview of this product and should not be intended as technical specification.*

*Because the properties of this product can be significantly affected by the fabrication and testing techniques employed and since CIT does not control the conditions under which its products are tested and used, CIT cannot guarantee that the properties provided will be obtained with other processes and equipment.*

*CIT has the right to change any data or information when deemed appropriate.*

<b>Cured Material Property</b>	<b>Test method</b>	<b>Units</b>	<b>Actual Value</b>
0° Tensile modulus		GPa	217
0° Tensile strength	ASTM D3039	MPa	1784
0° Poisson's ratio		-	0.313
0° Elongation at failure		%	0.67
90° Tensile modulus		GPa	6.68
90° Tensile strength	ASTM D3039	MPa	31.5
90° Poisson's ratio		-	0.014
90° Elongation at failure		%	0.48
0° Compressive modulus		GPa	199
0° Compressive strength	SACMA SRM 1R-94	MPa	873
0° Elongation at failure		%	0.44
90° Compressive modulus		GPa	7.08
90° Compressive strength	SACMA SRM 1R-94	MPa	238
90° Elongation at failure		%	3.81
In Plane Shear modulus		ASTM D3518	GPa
In Plane Shear strength @ failure	MPa		75.4
Inter-laminar Shear Strength	ASTM D2344	MPa	81.6

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