



Lamitex® G11 Tube Technical Data

G11 epoxy convolute wrapped tubes are reinforced with a woven glass fabric. This material is primarily used for mechanical, electrical and electronic applications where extremely high mechanical strength at high temperatures are required. Lamitex G11 meets or exceeds NEMA G11 specifications, has excellent resistance to chemicals and retains its electrical properties in high humidity environments.

<u>Mechanical Properties</u>	<u>Test Method:</u>			<u>Conditioning</u>	
	<u>EN 61212-2</u>	<u>Standard</u>	<u>Test Specimen</u>	<u>IEC 212</u>	<u>Values</u>
Flexural Strength	4.1	ISO 178	id>100 mm	1	350 Mpa
Compressive Strength, Axial	4.2	ISO 604		1	250 MPa
Tensile Strength, Axial		ISO527			280 MPa
Cohesion between layers	4.3	EN 61212-2	id<100 mm	1	480 MPa
<u>Electrical Properties</u>					
Electric Strength in oil @ 90C:					
Perpendicular to Laminations	5.1	IEC 243-1	3 mm wall thk	2	11.0 kV/mm
Parallel to Laminations	5.1	IEC 243-1	>3 mm wall thk id>8mm and or	2	60 kV/25 mm
Insulation resistance after immersion in water	5.2	IEC 167	od>10mm	4	10,000 M ohm
Permittivity:					
50Hz	5.3	IEC 250		3	4.5
1 MHz	5.3	IEC 250		3	4.5
Dissipation Factor:					
50Hz	5.3	IEC 250		3	0.01
1 MHz	5.3	IEC 250		3	0.01
<u>Physical and Thermal Properties</u>					
Thermal endurance index @ 20,000 hrs	6.0	IEC 216		-	180°C T.I.
Density	7.2	IEC 1183-A	All	1	1.8 g/cm ³
Water Absorption (maximum)		ASTM D229		4	0.15%

Conditioning: 1: 24h @ 23°C & 50%RH
 2: 24h @ 23°C & 50%RH + 1hr in oil at 90°C
 3: 96h @ 105°C + 1hr @ 23°C & 20%RH
 4: 24h @ 50°C + 24hr in water at 23°C

All information and suggestions pertaining to the properties and uses of the materials described herein are based upon tests and data believed to be accurate; however, the final determination regarding the suitability of any material for such use is the sole responsibility of the user. No warranty is expressed or implied, including, without limitation, warrant of merchantability or fitness for a particular purpose. Under no circumstances shall Lamitex, LLC be liable for incidental or consequential loss or damage.

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