

## Lamitex® G-5 Tube Technical Data

Lamitex® G-5 melamine convolute wrapped tubes are reinforced with woven glass fabric. They are used for mechanical and electrical applications where arc or arc track resistance is required. G-5 is a self-extinguishing halogen free composite with good flame resistance that meets NEMA G-5 requirements.

### Test Method:

<u>Mechanical Properties</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	180 Mpa
Compressive Strength, Axial	4.2	ISO 604		1	150 MPa
Cohesion between layers	4.3	EN 61212-2	id<100 mm	1	200 MPa

### Electrical Properties

Electric Strength in oil @ 90C:

Perpendicular to Laminations	5.1	IEC 243-1	3 mm wall thk	2	3.3 kV/mm
Parallel to Laminations	5.1	IEC 243-1	>3 mm wall thk id>8mm and or	2	25 kV/25 mm
Insulation resistance after immersion in water	5.2	IEC 167	od>10mm	4	1 M ohm
Permittivity:	50Hz	5.3	IEC 250	3	6
	1 MHz	5.3	IEC 250	3	6
Dissipation Factor:	50Hz	5.3	IEC 250	3	0.02
	1 MHz	5.3	IEC 250	3	0.01

### Physical and Thermal Properties

Thermal endurance index @ 20,000 hrs	6.0	IEC 216		-	130°C T.I.
Density	7.2	IEC 1183-A	All	1	1.8 g/cm <sup>3</sup>
Water Absorption	7.1	IEC 62-1		4	5.0 mg/cm <sup>2</sup>

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

5: 96h @ 105°C + 1hr in oil at 90°C

The standard length(s) for IDs > 8 mm to 1250 mm is 1220 mm.

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.

Composite Tubes • Bearings • Molded Shapes • Rotary Vanes • Fabricated Parts • Vulcanized Fibre • High Temp Insulation