



Composites For Today's Challenges

(302) 652-3621

info@lamitex.com

Lamitex® Grade LE Tube Technical Data

Lamitex® Grade LE phenolic convolute wound tubes are reinforced with a 76x76 bleached fine weave cotton fabric. It is a dimensionally stable material intended for electrical insulation and fine machining applications requiring good moisture resistance. Examples of applications are ball-bearing cages for spindle bearings and guide rings for hydraulic cylinders.

	<u>Standard</u>	<u>Test Specimen</u>	<u>Condition in g IEC 212</u>	<u>Values</u>
Flexural Strength	ISO 178	id>3.937 inches	1	100 Mpa / 14,554 psi
Compressive Strength, Axial	ISO 604		1	170 Mpa / 24,650 psi
Cohesion between layers	EN 61212-2	id<3.937 inches	1	130 Mpa / 18,855 psi

Electrical Properties

Electric Strength in oil @ 90C:

Perpendicular to Laminations	IEC 243-1	.118 inch wall thk	2	3 kV/25 mm -76.2 Vpm
Parallel to Laminations	IEC 243-1	>.118 inch wall thk	2	3 kV/25 mm - 20.3 kV/ inch
Insulation resistance after immersion in water	IEC 167	id>.315 inch and or od>.394 inches	3	200 M ohm

Physical and Thermal Properties

Thermal endurance index @ 20,000 hrs	IEC 216	-	248°F / 120°C T.I.
Density	IEC 1183-A	All	1.25g/cm ³
Water Absorption	ASTM D348		D ₁ -24/23 2.5%

Conditioning: 1: 24h @ 23°C(73°F) & 50%RH
2: 24h @ 23°C(73°F) & 50%RH + 1hr in oil @ 90°C(194°F)
3: 24h @ 50°C(122°F) + 24hr in water @ 23°C(73°F)

The standard length for inside diameters .118" to .591" is 53.1 inches and for IDs >.591 to 49.2" is 57.1 inches

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