



## Lamitex® XXX Tube Technical Data

Lamitex® XXX paper/ phenolic convolute wrapped tubes is a premium grade composite formulated for electrical and mechanical applications in high humidity conditions. It retains good electrical properties in high frequency applications and whose low moisture absorption rate accounts for its excellent electrical insulation strengths and dimensional stability.

<u>Mechanical Properties</u>	<u>Standard</u>	<u>Test Specimen</u>	<u>Conditioning</u> <u>IEC 212</u>	<u>Values</u>
Flexural Strength	ISO 178	id>100 mm	1	120 MPa
Compressive Strength, Axial	ISO 604		1	130 MPa
Cohesion between layers	EN 61212-2	id<100 mm	1	145 MPa
<u>Electrical Properties</u>				
Electric Strength in oil @ 90°C:				
Perpendicular to Laminations	IEC 243-1	3 mm wall thk	2	6.7 kV/mm
Parallel to Laminations	IEC 243-1	>3 mm wall thk	2	25 kV/ 25 mm
Insulation resistance after immersion in water	IEC 167	id>8mm and or od>10mm	4	200 M ohm
Permittivity 50 Hz & 1 MHz	IEC 250		3	5.0
Dissipation Factor 50 Hz and 1 MHz	IEC 250		3	0.030
<u>Physical and Thermal Properties</u>				
Thermal endurance index @ 20,000 hrs	IEC 216		-	120°C
Density	IEC 1183-A	All	1	1.25 g/cm <sup>3</sup>
Water Absorption	D1-24/23			0.60%

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

The standard mm length(s) for inside diameters 3 - 8.4 mm is 1500, 8.5 -10 mm is 1350, IDs >10 to 100 mm is 1350, 1500, or 1650 and >100 - 1250 mm is 1220, 1350, or 1650 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*