



FRANKLIN

Composites for Today's Challenges

Franklin Fibre - Lamitex Corp.

903 E. 13th St., Wilmington, DE 19802

p: (302) 652-3621

f: (302) 571-9754

info@franklinfibre.com

Lamitex® G10 Tube

Lamitex® G10 is a non-brominated glass/epoxy convolute wound composite with excellent mechanical and electrical insulation properties. It meets or exceeds NEMA G10 and Mil-I-24768/2 specifications, has excellent resistance to chemicals and retains its electrical properties in high humidity environments.

<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>3.937 inches	1	50,760 psi
Compressive Strength, Axial	ISO 604		1	36,260 psi
Cohesion between layers	EN 61212-2	id<3.937 inches	1	69,600 psi
 <u>Electrical Properties</u>				
Electric Strength in oil @ 90C:				
Perpendicular to Laminations	IEC 243-1	.118 inch wall thk	2	279 Vpm
Parallel to Laminations	IEC 243-1	>.118 inch wall thk	2	61 kV/inch
Insulation resistance after immersion in water	IEC 167	id>.315 inch and	4	10,000 M ohm
Permittivity:	50Hz	IEC 250	3	4.5
	1 MHz	IEC 250	3	4.5
Dissipation Factor:	50Hz	IEC 250	3	0.01
	1 MHz	IEC 250	3	0.01
 <u>Physical and Thermal Properties</u>				
Thermal endurance index @ 20,000 hrs	IEC 216		-	140°C
Density	IEC 1183-A	All	1	1.8 g/cm ³
Water Absorption	ASTM D348		D ₁ -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 length(s) for inside diameters .118" to .472" is 48 inches and for IDs >.472" to 49.2" is 48 and 63 inches

All values are average test results from extensive testing of typical production material. No warranty is implied or guaranteed and testing is recommended for each application.

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

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