



Lamitex® G3 Glass Phenolic Tubes

Lamitex® G3 glass/phenolic tubes are most frequently specified for applications that require high flexural and high impact strengths with good electrical properties under low relative humidity conditions. It is a self extinguishing halogen free composite with good chemical resistance. Applicable standards for Lamitex G3 are: IEC EN 61212-3-1 , PF GC 21, Hgw 2075 and NEMA L1 grade G3.

<u>Mechanical Properties</u>	<u>Standard</u>	<u>Test Specimen</u>	<u>Values</u>	
Flexural Strength	ISO 178	id>100 mm	300 MPa / 43,500 psi	*1
Compressive Strength, Axial	ISO 604		220 MPa / 31,900 psi	*1
Cohesion between layers	EN 61212-2	id<100 mm	250 MPa / 36,260 psi	*1
<u>Electrical Properties</u>				
Electric Strength in oil @ 90°C:				
Perpendicular to Laminations	IEC 60243-1	3 mm wall thk	8 kV/mm - 203 Vpm	*2
Parallel to Laminations	IEC 60243-1	≥3 mm wall thk	50 kV/ 25 mm	*2
Insulation resistance after immersion in water	IEC 60167	id>8mm and or od>10mm	1000 MΩ	*4
Permittivity 50 MHz & 1 MHz	IEC 60250		5.0	*3
Dissipation Factor 50 MHz	IEC 60250		0.030	*3
Dissipation Factor 1 MHz	IEC 60250		0.040	*3
Comparative Tracking Index (CTI)	IEC 60112	≥3 mm wall thk	100 Volts	*F
<u>Physical and Thermal Properties</u>				
Thermal endurance index @ 20,000 hrs	IEC 216	≥3 mm thick	155°C	
Fire Class	IEC 60695-11-10	≥3 mm thick	V-0	
Density	IEC 1183-A	All	1.85 g/cm ³	*1
Water Absorption	ASTM D229		0.60%	*4

IEC 212 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
F: Tested on sheet material

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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