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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

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