

## Composites for Today's Challenges

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## Lamitex® G7 Glass Silicone Tube

Lamitex® G-7 glass silicone tubes are used in mechanical, electrical and electronic constructions at elevated temperatures. It retains good electrical properties at elevated temperatures, is self-extinguishing and has a low dielectric loss factor at high frequencies. It is frequently used for mast arm and other melt shop electrical insulation applications.

Mechanical Properties		Test Method	Test Specimen	<u>Values</u>	
Flexural Strength		ISO 178	id>3.937 inches	120 Mpa / 17,400 psi	*1
Compressive Strength, Axial		ISO 604		65 Mpa / 9,425 psi	*1
Cohesion between layers		EN 61212-2	id<3.937 inches	150 Mpa / 21,755 psi	*1
Electrical Proper	<u>rties</u>				
Electric Strength in oil @ 90C	:				
Perpendicular to Laminations		IEC 243-1	.118 inch wall thk	6.7 kV/mm / 170kV/mil	*2
Parallel to Laminations		IEC 243-1	>.118 inch wall thk	40~kV/25~mm / $40.6~kV/$ in.	*2
Insulation resistance after immersion		IEC 60167	id>.315 inch and	5,000 M Ω	
	in water		or od>.394 inchs	3,000 W 12	*4
Permittivity:	50Hz	IEC 60250		4.0	*3
	1 MHz	IEC 60250		4.0	*3
Dissipation Factor:	50Hz	IEC 60250		0.006	*3
	1 MHz	IEC 60250		0.006	*3
Physical and Thermal	<u>Properties</u>				
Thermal endurance index (TI) @ 20,000 hrs		IEC 60216		210°C	
Density		ISO 1183-A	All	1.8 g/cm <sup>3</sup>	*1
Moisture Absorption (maximum) D 24/23		ASTM D229		0.35%	

IEC 212 Conditioning: 1: 24h @ 73°F & 50%RH

2: 24h @ 73°F & 50%RH + 1hr in oil at 194°F

3: 96h @ 221°F + 1hr @ 73°F & 20%RH

4: 24h @ **122**°F + 24hr in water at 73°F

G7 Glass Silicone Laminate recognized material designations:

EN 60893 - SI GC 202 DIN 7735 - Hgw 2572 NEMA LI-1 - G7 Mil-I-24768/17 type GSG

The standard tube length is 48"

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 Franklin Fibre - Lamitex Corp be liable for incidental or consequential loss or damage.

 $\underline{\textit{Composite Tubes} \cdot \textit{Bearings} \cdot \textit{Molded Shapes} \cdot \textit{Rotary Vanes} \cdot \textit{Fabricated Parts} \cdot \textit{Vulcanized Fibre} \cdot \textit{High Temp Insulation}}$