



## Lamitex G-7 Laminated Sheet

Lamitex® G7 glass/silicone laminated sheets are primarily used for mechanical, electrical and electronic applications where high mechanical strengths are required at temperatures up to 220° C. Lamitex G-7 meets or exceeds NEMA G-7 and Mil-I-24768/17 specifications, meets UL 94 class V0, has extremely good dielectric loss properties under dry conditions and good electrical properties under humid conditions. Lamitex G-7 is available in sheet and convoluted wound rolled tubes.

<u>Mechanical Properties</u>	<u>Standard</u>	<u>Test Specimen</u>	<u>Thickness</u>	<u>Values</u>
Flexural Strength	ISO 178	≥1.6 mm	135 MPa / 19,580 psi	*1
Modulus of Elasticity	ISO 178	≥1.6 mm	13 GPa / 1,885.4 kpsi	*1
Compressive Strength	ISO 604	≥5.0 mm	330 MPa / 65,270 psi	*1
Izod Impact Strength Parallel	ISO 180/2A	≥5.0 mm	45 kJ/m <sup>2</sup> / 6.5 ft-lb/in.(notch)	*1
Shearing Strength	EN 60893-2	≥5.0 mm	15 MPa / 2,175 psi	*1
Coefficient of Thermal Expansion			10.0 cm/cm/°C x 10-6	
Bond Strength		12.7 mm	178.7 kg / 650 lbs	*1
Tensile	ISO 527	≥1.6 mm	160 MPa / 19,580 psi	*1

### Electrical Properties

Electric Strength in oil @ 90C:

3 mm, Perpendicular to Laminations	IEC 243-1	3.0 mm	7 kV/mm - 177 V/mil	*2
25 mm, Parallel to Laminations	IEC 243-1	≥3.0 mm	50 kV/ 25 mm - 51 kV/in	*2
Permittivity: 50 MHz and 1 MHz	IEC 250	≥1.6 mm	4.0	*3
Dissipation Factor: 50 MHz and 1 MHz	IEC 250	≥1.6 mm	0.003	*3
Insulation resistance after immersion in water	IEC 167	All	100,000 M Ω	*4
Arc Resistance	ASTM D229		180 sec	*1
Comparative Tracking Index	IEC 112	≥3.0mm	400 CTI	*1

### Physical and Thermal Properties

Temperature index @ 20,000 hrs	IEC 216	≥3.0 mm	210°C Temp Index
Fire class	IEC 60695-11-10	≥5.0 mm	V-0
Density	IEC 1183-A	All	1.90 g/cm <sup>3</sup>
Water Absorption	IEC 62-1	50x50x3 mm	20 mg

IEC 212Conditioning: 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

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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