

Lamitex® G-10 CR Glass/Epoxy Sheet

Lamitex® G-10CR epoxy laminated sheet exhibits high mechanical strengths and electrical insulating qualities under dry, humid and extreme temperature conditions. It is formulated for use in cryogenic applications, including liquid nitrogen which under normal atmospheric pressure can exist as a liquid between 63° and 77.2° K (-346°F & 320.4°F. Lamitex G-10CR meets or exceeds NEMA G10 and Mil-I-24768/2 specifications and has excellent resistance to most chemicals.

<u>Physical Properties</u>	<u>Test Condition</u>	<u>ASTM</u>	<u>Values</u>
Thickness			.125"
Specific Gravity		D792	1.80
Rockwell Hardness (.250")		D785	100 (M Scale)
Moisture Absorption (.062")	D ₁ -24/23	D229	< 0.1%
Flexural Strength (.062")	Condition A: Lengthwise	D229	75,000 psi
	Crosswise		65,000 psi
Flexural Modulus (.062")	Condition A: Lengthwise	D229	2,700 kpsi
	Crosswise		2,400 kpsi
Tensile Strength	Condition A: Lengthwise		45,000 psi
	Crosswise		38,000 psi
Compressive Strength (.500")	Condition A: Flatwise	D695	65,000 psi
Izod Impact Strength (.500" thick)	E-48/50: Lengthwise	D229	14.0 ft-lb/in.(notch)
	Crosswise		12.0 ft-lb/in.(notch)
Bond Strength (.500" thick)	Condition A	D229	2,200 lbs
Shear Strength	Condition A Perpendicular		22,000 psi
<u>Thermal & Electrical Properties</u>			
Temperature Index	Electrical		130° C
	Mechanical		140° C
Coefficient of Thermal Expansion	x-axis / y-axis		10.0 / 13.0 cm/cm/°C/ x 10 ⁻⁶
U.L.® 94 Flammability Rating			94HB
Glass Transition (T _g)			115° C
Thermal Endurance (0.125")			135° C
Dissipation Factor (.062")	D ₁ -24/23 48/50		0.025
Permittivity (.062")	D ₁ -24/23 48/50		4.8
Dielectric Breakdown Voltage (.062")	Condition A	D229	60.0 kV
	D 48/50	D229	50.0 kV
Dielectric Strength (.062)	Condition A	D229	670 Vpm
	D 48/50	D229	660 Vpm
Arc Resistance (0.125")	Condition A	D-498	100 sec
Comparative Tracking Index (0.125")	Condition A	D-3638	150V

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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