

Industrial Laminates/Norplex NP509 Glass Fabric

Category : Polymer , Thermoset

Material Notes:

Description: Woven glass fabric, melamine resin laminate. Very hard, flame resistant, machining grade with excellent electrical properties in high humidity conditions. High physical strength and excellent arc resistance. Meets U.L. flammability classification V-0. MIL-P-24768/1 & 8, types GMG & GME. Thickness Tested: 0.062", 0.125" and 0.500"

Order this product through the following link:

http://www.lookpolymers.com/polymer_Industrial-LaminatesNorplex-NP509-Glass-Fabric.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.80 - 1.90 g/cc	1.80 - 1.90 g/cc	ASTM D792
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Moisture Absorption at Equilibrium	0.60 %	0.60 %	ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	105 - 125	105 - 125	ASTM D785
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Tensile Strength, Yield	352 MPa	51100 psi	CW; ASTM D638
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	425 MPa	61600 psi	LW; ASTM D638
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Modulus of Elasticity	11.7 GPa	1700 ksi	CW; ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	13.8 GPa	2000 ksi	LW; ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Flexural Strength	352 MPa	51100 psi	CW; ASTM D790
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	425 MPa	61600 psi	LW; ASTM D790
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Compressive Strength	483 MPa	70000 psi	ASTM D695
	@Thickness 12.7 mm	@Thickness 0.500 in	
	124 MPa	18000 psi	

Shear Strength Mechanical Properties	Metric @Thickness 15.7 mm	English @Thickness 0.620 in	ASTM D732 Comments
Izod Impact, Unnotched	4.54 J/cm @Thickness 12.7 mm	8.50 ft-lb/in @Thickness 0.500 in	CW, Cond E-48/50; ASTM D256
	6.67 J/cm @Thickness 12.7 mm	12.5 ft-lb/in @Thickness 0.500 in	LW, Cond E-48/50; ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	15.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Thickness 1.57 mm, Temperature 20.0 $\text{Å}^\circ\text{C}$	8.33 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Thickness 0.0620 in, Temperature 68.0 $\text{Å}^\circ\text{F}$	x-axis; IPC-TM 650-2.4.24
CTE, linear, Transverse to Flow	18.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Thickness 1.57 mm, Temperature 20.0 $\text{Å}^\circ\text{C}$	10.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Thickness 0.0620 in, Temperature 68.0 $\text{Å}^\circ\text{F}$	x-axis; IPC-TM 650-2.4.24
Maximum Service Temperature, Air	140 $\text{Å}^\circ\text{C}$	284 $\text{Å}^\circ\text{F}$	
Flammability, UL94	V-0 @Thickness 1.57 mm	V-0 @Thickness 0.0620 in	

Electrical Properties	Metric	English	Comments
Dielectric Constant	7.03 @Thickness 1.57 mm	7.03 @Thickness 0.0620 in	Permittivity, Cond D-24/23; ASTM D150
Dielectric Strength	15.7 kV/mm @Thickness 1.57 mm	400 kV/in @Thickness 0.0620 in	Cond D-48/50; ASTM D229 S.T.
	17.7 kV/mm @Thickness 1.57 mm	450 kV/in @Thickness 0.0620 in	Cond A; ASTM D229 S.T.
Dielectric Breakdown	55000 V @Thickness 1.57 mm	55000 V @Thickness 0.0620 in	Cond D-48/50; ASTM D229 S/S
	65000 V @Thickness 1.57 mm	65000 V @Thickness 0.0620 in	Cond A; ASTM D229 S/S
Dissipation Factor	0.15 @Thickness 1.57 mm	0.15 @Thickness 0.0620 in	Cond D-24/23; ASTM D150
Arc Resistance	185 sec @Thickness 3.17 mm	185 sec @Thickness 0.125 in	ASTM D495
	≥ 600 V	≥ 600 V	

Comparative Tracking Index		Metric	English	ASTM D3638
Electrical Properties		@ Thickness 3.17 mm	@ Thickness 0.125 in	Comments
Descriptive Properties		Value	Comments	
Bond Strength		1900 lb	0.5", ASTM D229	
Color		Natural		

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China