

Industrial Laminates/Norplex NP631 Paper Base Laminate

Category : Polymer , Thermoset

Material Notes:

Description: Hot punching grade with excellent electrical properties and low moisture absorption. Thickness Tested: 0.062", 0.125" and 0.500"

Order this product through the following link:

http://www.lookpolymers.com/polymer_Industrial-LaminatesNorplex-NP631-Paper-Base-Laminate.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.38 g/cc	1.38 g/cc	
Moisture Absorption at Equilibrium	1.0 % @Thickness 15.7 mm	1.0 % @Thickness 0.620 in	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	105 - 125 @Thickness 1.57 mm	105 - 125 @Thickness 0.0620 in	
Tensile Strength, Yield	82.7 MPa @Thickness 3.17 mm	12000 psi @Thickness 0.125 in	CW
	103 MPa @Thickness 3.17 mm	15000 psi @Thickness 0.125 in	LW
Flexural Strength	91.0 MPa @Thickness 1.57 mm	13200 psi @Thickness 0.0620 in	CW
	110 MPa @Thickness 1.57 mm	16000 psi @Thickness 0.0620 in	LW
Flexural Modulus	6.21 GPa @Thickness 1.57 mm	900 ksi @Thickness 0.0620 in	CW
	7.58 GPa @Thickness 1.57 mm	1100 ksi @Thickness 0.0620 in	LW
Compressive Strength	221 MPa @Thickness 12.7 mm	32000 psi @Thickness 0.500 in	Flatwise
Shear Strength	7.93 MPa @Thickness 1.57 mm	1150 psi @Thickness 0.0620 in	Perpendicular
	0.320 J/cm	0.600 ft-lb/in	

Impact, Unnotched Mechanical Properties	Metric @ Thickness 12.7 mm	English @ Thickness 0.500 in	CW, E-48/50 Comments
	0.347 J/cm	0.650 ft-lb/in	LW, E-48/50
	@Thickness 12.7 mm	@Thickness 0.500 in	

Thermal Properties	Metric	English	Comments
CTE, linear	16.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 $\text{Å}^\circ\text{C}$	8.89 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 $\text{Å}^\circ\text{F}$	x-axis
CTE, linear, Transverse to Flow	20.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 $\text{Å}^\circ\text{C}$	11.1 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 $\text{Å}^\circ\text{F}$	y-axis
Maximum Service Temperature, Air	125 $\text{Å}^\circ\text{C}$	257 $\text{Å}^\circ\text{F}$	
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Dielectric Constant	4.8 @Thickness 1.57 mm	4.8 @Thickness 0.0620 in	Permittivity, Cond D-24/23
Dielectric Strength	23.6 kV/mm @Thickness 1.57 mm	600 kV/in @Thickness 0.0620 in	D-48/50
	29.5 kV/mm @Thickness 1.57 mm	750 kV/in @Thickness 0.0620 in	Condition - A
Dielectric Breakdown	15000 V @Thickness 1.57 mm	15000 V @Thickness 0.0620 in	D-48/50
	60000 V @Thickness 1.57 mm	60000 V @Thickness 0.0620 in	Condition A
Dissipation Factor	0.035 @Thickness 1.57 mm	0.035 @Thickness 0.0620 in	Cond D-24/23
Arc Resistance	124 sec @Thickness 3.17 mm	124 sec @Thickness 0.125 in	ASTM D495
Comparative Tracking Index	200 V @Thickness 3.17 mm	200 V @Thickness 0.125 in	ASTM D3638

Descriptive Properties	Value	Comments
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Descriptive Properties

Value

Comments

Contact Songhan Plastic Technology Co.,Ltd.

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