

## Industrial Laminates/Norplex NP344 Cotton Fabric

Category : Polymer , Thermoset , Phenolic

**Material Notes:**

Description: Fine weave canvas laminate with high temperature phenolic resin and molybdenum disulfide lubricant. Good machining properties and low coefficient of thermal expansion. Better machining than NP313. Thickness Tested: 0.062", 0.125" & 0.500".

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Industrial-LaminatesNorplex-NP344-Cotton-Fabric.php](http://www.lookpolymers.com/polymer_Industrial-LaminatesNorplex-NP344-Cotton-Fabric.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.35 - 1.45 g/cc	1.35 - 1.45 g/cc	ASTM D792
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Moisture Absorption at Equilibrium	2.0 %	2.0 %	ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	90 - 110	90 - 110	ASTM D785
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Tensile Strength, Yield	65.5 MPa	9500 psi	CW; ASTM D638
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	86.2 MPa	12500 psi	LW; ASTM D638
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Modulus of Elasticity	7.58 GPa	1100 ksi	CW; ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	10.3 GPa	1500 ksi	LW; ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Flexural Strength	131 MPa	19000 psi	CW; ASTM D790
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	159 MPa	23000 psi	LW; ASTM D790
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Compressive Strength	241 MPa	35000 psi	ASTM D695
	@Thickness 12.7 mm	@Thickness 0.500 in	
Shear Strength	96.5 MPa	14000 psi	ASTM D732
	@Thickness 15.7 mm	@Thickness 0.620 in	

Mechanical Properties	Metric $J/cm$	English $lb/in$	Comments
Izod Impact, Unnotched	@Thickness 12.7 mm	@Thickness 0.500 in	CW, Cond E-48/50; ASTM D256
	0.908 J/cm	1.70 ft-lb/in	LW, Cond E-48/50; ASTM D256
	@Thickness 12.7 mm	@Thickness 0.500 in	

Thermal Properties	Metric	English	Comments
CTE, linear	10.0 $\mu m/m-^{\circ}C$	5.56 $\mu in/in-^{\circ}F$	x-axis; IPC-TM 650-2.4.24
	@Thickness 1.57 mm, Temperature 20.0 $^{\circ}C$	@Thickness 0.0620 in, Temperature 68.0 $^{\circ}F$	
CTE, linear, Transverse to Flow	12.0 $\mu m/m-^{\circ}C$	6.67 $\mu in/in-^{\circ}F$	x-axis; IPC-TM 650-2.4.24
	@Thickness 1.57 mm, Temperature 20.0 $^{\circ}C$	@Thickness 0.0620 in, Temperature 68.0 $^{\circ}F$	
Maximum Service Temperature, Air	130 $^{\circ}C$	266 $^{\circ}F$	
Flammability, UL94	HB	HB	
	@Thickness 1.57 mm	@Thickness 0.0620 in	

Descriptive Properties	Value	Comments
Bond Strength	1900 lb	0.5", ASTM D229
Color	Natural	

## Contact Songhan Plastic Technology Co.,Ltd.

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