

## Industrial Laminates/Norplex NP545 Carbon Fiber (discontinued \*\*)

Category : Polymer , Thermoset , Carbon Fiber/Thermoset Composite

### Material Notes:

Description: NP545 is composed of carbon fiber fabric and an epoxy resin system. It has excellent moisture resistance and physical properties. Potential uses include fixtures and gage systems, high performance gears and bearings, and pump and compressor vanes. Thickness Tested: 0.062", 0.125" and 0.500"

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Industrial-LaminatesNorplex-NP545-Carbon-Fiber-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Industrial-LaminatesNorplex-NP545-Carbon-Fiber-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.60 - 1.70 g/cc	1.60 - 1.70 g/cc	ASTM D792
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Moisture Absorption at Equilibrium	0.10 %	0.10 %	ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	95 - 115	95 - 115	ASTM D785
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Tensile Strength, Yield	490 MPa	71000 psi	CW; ASTM D638
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	496 MPa	72000 psi	LW; ASTM D638
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Modulus of Elasticity	36.5 GPa	5300 ksi	CW; ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	41.4 GPa	6000 ksi	LW; ASTM D229
	@Thickness 1.57 mm	@Thickness 0.0620 in	
Flexural Strength	676 MPa	98000 psi	CW; ASTM D790
	@Thickness 1.57 mm	@Thickness 0.0620 in	
	679 MPa	98500 psi	LW; ASTM D790
	@Thickness 1.57 mm	@Thickness 0.0620 in	

Thermal Properties	Metric	English	Comments
CTE, linear	4.00 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	2.22 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	x-axis; IPC-TM 650-2.4.24

Thermal Properties	@Thickness 1.57 mm, Metric Temperature 20.0 °C	@Thickness 0.0620 in, English Temperature 68.0 °F	Comments
CTE, linear, Transverse to Flow	8.00 $\mu\text{m}/\text{m}\cdot\text{°C}$	4.44 $\mu\text{in}/\text{in}\cdot\text{°F}$	x-axis; IPC-TM 650-2.4.24
	@Thickness 1.57 mm, Temperature 20.0 °C	@Thickness 0.0620 in, Temperature 68.0 °F	
Maximum Service Temperature, Air	177 °C	351 °F	
Glass Transition Temp, Tg	125 °C	257 °F	Tg
Flammability, UL94	HB	HB	
	@Thickness 1.57 mm	@Thickness 0.0620 in	

Descriptive Properties	Value	Comments
Bond Strength	1200 lb	0.5", ASTM D229
Color	Black	

## Contact Songhan Plastic Technology Co.,Ltd.

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