

PHENOLIC NEMA GRADE C
NP310

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PHYSICAL PROPERTIES

NP310 is a canvas machining grade for structural and mechanical applications. It has better impact strength than phenolic paper grades. NP310 meets or exceeds the requirements of MIL-I-24768/16.

Property	Method	Unit	Nominal Value*
Tensile strength (0.125"), LW	ASTM D-638	psi	12,000
Tensile strength (0.125"), CW	ASTM D-638	psi	9,700
Bond strength (0.500"), LW	ASTM D-229	lb	2,500
Bond strength (0.500"), CW	ASTM D-229	lb	2,300
Flexural modulus (0.062"), LW	ASTM D-790	kpsi	1,600
Flexural modulus (0.062"), CW	ASTM D-790	kpsi	1,500
Flexural strength (0.062"), LW	ASTM D-790	psi	18,000
Flexural strength (0.062"), CW	ASTM D-790	psi	17,000
IZOD impact strength E-48/50 (0.500"), LW	ASTM D-256	ft-lb/in	1.95
IZOD impact strength E-48/50 (0.500"), CW	ASTM D-256	ft-lb/in	1.75
Compressive strength flatwise (0.500")	ASTM D-695	psi	34,000
Shear strength (perpendicular) (0.062")	ASTM D-732	psi	14,000
Rockwell Hardness (0.062")		M Scale	100
Maximum operating temperature		°C	125
Coefficient of Thermal expansion, X-axis		in/in/°C	20 x 10 ⁻⁶
Coefficient of Thermal expansion, Y-axis		in/in/°C	22 x 10 ⁻⁶
Moisture Absorption (0.062")		%	3.5
Specific Gravity	ASTM D792	-	1.37
Flammability Rating	U.L. 94	Class	HB
Breakdown Voltage Condition A		kV	20
Breakdown Voltage (0.062"), D-48/50		kV	5
Electric Strength Condition A		V/mil	400
Electric Strength (.062"), D-48/50		V/mil	150
Arc Resistance (0.125")	ASTM D-495	sec	15
Comparative Tracking Index (0.125"), D3638			155

*All values are determined on specimens prepared according to ASTM 1248-84 "Standard Specifications for Polyethylene Plastic Molding and Extrusion Materials". Nominal values should not be interpreted as specifications.

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