



NP342

TECHNICAL DATA BULLETIN

GRADE: NP342

NEMA: C

U.L. LISTED: N

DESCRIPTION: Fine weave canvas phenolic material with fabric construction weight intermediate to NP310 and NP320. NP342 is designed for better machining than grade NP310 and lower cost than NP320.

TYPICAL PROPERTIES

		UNITS	VALUE		
			Thickness Tested		
			0.0625"	0.125"	0.500"
PHYSICAL PROPERTIES					
Specific Gravity (ASTM D792)		-			1.35
Rockwell Hardness (ASTM D785)		0.250" Build-up	M Scale	100	
Moisture Absorption (ASTM D570)	Condition A	%	1.80		
Flexural Strength (ASTM D790)	Condition A LW / CW	psi (Mpa)	25,000 / 22,700 (172.4) / (156.5)		
Flexural Modulus (ASTM D790)	Condition A LW / CW	kpsi (Gpa)	1,700 / 1,300 (11.7) / (9.0)		
Tensile Strength (ASTM D638)	Condition A LW / CW	psi (Mpa)		12,700 / 10,900 (87.6) / (75.2)	
Izod Impact Strength (ASTM D256)	Condition A	ft-lb/in (J/cm)			
	LW / CW				
	Condition E-48/50 LW / CW	ft-lb/in (J/cm)			1.60 / 1.40 (0.85) / (0.75)
Compressive Strength (ASTM D695)	Condition A Flatwise	psi (Mpa)			35,000 (241.3)
Bonding Strength (ASTM D229)	Condition A	lb (kg)			1,900 (861.8)
Shear Strength (ASTM D732)	Condition A Perpendicular	psi (Mpa)	14,000 (96.5)		



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TYPICAL PROPERTIES (continued)

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			Thickness Tested		
			0.0625"	0.125"	0.500"
THERMAL PROPERTIES					
Temperature Index ¹ (UL Bulletin 746b)	Electrical / Mechanical	°C	125 / 125		
Coefficient of Thermal Expansion (IPC-TM 650-2.4.24)	X-axis / Y-axis	" / °C x10 ⁻⁶		20.0 / 22.0	
Flammability Rating (UL Bulletin 94)	Condition A	Class	HB		
ELECTRICAL PROPERTIES					
Breakdown Voltage (ASTM D149)	Condition A	kVolts	40		
	Condition D-48/50	kVolts	3		
Electric Strength (ASTM D149)	Condition A	Volts/mil (kV/cm)	550 (216.5)		
	Condition D-48/50	Volts/mil (kV/cm)	300 (118.1)		