

NP101

TECHNICAL DATA BULLETIN

GRADE: NP101

NEMA: N-1

U.L. LISTED: N

DESCRIPTION: Phenolic resin combined with spun nylon fabric. Good impact strength and excellent electrical properties under high humidity conditions.

TYPICAL PROPERTIES

		UNITS	VALUE		
			Thickness Tested		
			0.0625"	0.125"	0.500"
PHYSICAL PROPERTIES					
Specific Gravity (ASTM D792)		-			1.15
Rockwell Hardness (ASTM D785)	0.250" Build-up	M Scale	90		
Moisture Absorption (ASTM D570)	Condition A	%	0.30		
Flexural Strength (ASTM D790)	Condition A LW / CW	psi (Mpa)	18,000 / 13,000 (124.1) / (89.6)		
Flexural Modulus (ASTM D790)	Condition A LW / CW	kpsi (Gpa)	700 / 550 (4.8) / (3.8)		
Tensile Strength (ASTM D638)	Condition A LW / CW	psi (Mpa)		8,000 / 8,000 (55.2) / (55.2)	
Izod Impact Strength (ASTM D256)	Condition A LW / CW	ft-lb/in (J/cm)			9.00 / 6.00 (4.80) / (3.20)
Compressive Strength (ASTM D695)	Condition A Flatwise	psi (Mpa)			25,000 (172.4)
Bonding Strength (ASTM D229)	Condition A	lb (kg)			1,800 (816.5)
Shear Strength (ASTM D732)	Condition A Perpendicular	psi (Mpa)	14,000 (96.5)		

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TYPICAL PROPERTIES (continued)

	UNITS	VALUE		
		Thickness Tested		
		0.0625"	0.125"	0.500"
THERMAL PROPERTIES				
Maximum Operating Temperature ¹	°C			105
Temperature Index ¹ (UL Bulletin 746b) Electrical / Mechanical	°C	105 / 105		
Flammability Rating Condition A (UL Bulletin 94)	Class	HB		
ELECTRICAL PROPERTIES				
Dissipation Factor @ 1 MHz (ASTM D150)	Condition A	-		
	Condition D-24/23	-	0.035	
Relative Permittivity @ 1 MHz (ASTM D150)	Condition A	-		
	Condition D-24/23	-	3.75	
Breakdown Voltage (ASTM D149)	Condition A	kVolts	65	
	Condition D-48/50	kVolts	45	
Electric Strength (ASTM D149)	Condition A	Volts/mil (kV/cm)	650 (255.9)	
	Condition D-48/50	Volts/mil (kV/cm)	500 (196.9)	
Arc Resistance (ASTM D495)	Condition A	sec		80
Comparative Tracking Index (ASTM D3638)		Volts		150

¹ This temperature is a recommendation only, and based upon experience in various applications. The maximum operating temperature is dependent upon the application and should be investigated prior to use.

This data, while believed to be accurate and based on reliable analytical methods, is for informational purposes only. The terms and conditions of the agreement under which it is sold will govern any sales of this product. Data supplied above are "typical values"; not to be considered "specification values".

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Specification writers: Contact Norplex-Micarta for specification values before submission.