

NP634

TECHNICAL DATA BULLETIN

GRADE: NP634

U.L. LISTED: N

DESCRIPTION: Warm punching, composite grade with woven glass covers for improved flexural, tensile and impact strength. It has better electrical properties and higher mechanical strength than NP611.

TYPICAL PROPERTIES

	UNITS	VALUE		
		Thickness Tested		
		0.0625"	0.125"	0.500"
PHYSICAL PROPERTIES				
Specific Gravity (ASTM D792)	-			Variable
Rockwell Hardness (ASTM D785) 0.250" Build-up	M Scale	108		
Moisture Absorption Condition A (ASTM D570)	%	0.72		
Flexural Strength Condition A (ASTM D790) LW / CW	psi (Mpa)	51,600 / 44,600 (355.8) / (307.5)		
Flexural Modulus Condition A (ASTM D790) LW / CW	kpsi (Gpa)	1,800 / 1,500 (12.4) / (10.3)		
Tensile Strength Condition A (ASTM D638) LW / CW	psi (Mpa)		23,900 / 20,100 (164.8) / (138.6)	
Izod Impact Strength Condition A (ASTM D256) LW / CW	ft-lb/in (J/cm)			3.34 / 2.24 (1.78) / (1.20)
Compressive Strength Condition A (ASTM D695) Flatwise	psi (Mpa)			41,500 (286.1)
Bonding Strength Condition A (ASTM D229)	lb (kg)			1,500 (680.4)
Shear Strength Condition A (ASTM D732) 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				
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	13.0 / 15.0	
Flammability Rating (UL Bulletin 94)	Condition A	Class	HB	
ELECTRICAL PROPERTIES				
Dissipation Factor @ 1 MHz (ASTM D150)	Condition A	-		
	Condition D-24/23	-	0.037	
Relative Permittivity @ 1 MHz (ASTM D150)	Condition A	-		
	Condition D-24/23	-	5.20	
Breakdown Voltage (ASTM D149)	Condition A	kVolts	53	
	Condition D-48/50	kVolts	7	
Electric Strength (ASTM D149)	Condition A	Volts/mil (kV/cm)	600 (236.2)	
	Condition D-48/50	Volts/mil (kV/cm)	550 (216.5)	
Arc Resistance (ASTM D495)	Condition A	sec		120
Comparative Tracking Index (ASTM D3638)		Volts		200

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".

It is the responsibility of the users of this information to make sure that they have the latest version of this TDB, and are urged to check with Customer Service or, preferably our web site, www.norplex-micarta.com, to determine if the information is the most current available.

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