

NP318

TECHNICAL DATA BULLETIN

GRADE: NP318

NEMA: CF

U.L. LISTED: N

DESCRIPTION: Post-forming canvas phenolic material. NP318's mechanical and electrical properties are similar to NP310E. It is made from a cotton fabric weighing more than 4 ounces per square yard and having a thread count of not more than 70 threads per inch in both the warp and filler directions. The binder is a modified phenolic resin system, which permits the material to be heated, formed into a shape and cooled under restraint to hold the newly formed shape.

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	90		
Moisture Absorption (ASTM D570)Condition A		%	4.20		
Flexural Strength (ASTM D790)Condition ALW / CW		psi (Mpa)	17,000 / 14,000 (117.2) / (96.5)		
Flexural Modulus (ASTM D790)Condition ALW / CW		kpsi (Gpa)	1,100 / 900 (7.6) / (6.2)		
Tensile Strength (ASTM D638)Condition ALW / CW		psi (Mpa)		10,000 / 6,000 (68.9) / (41.4)	
Izod Impact Strength (ASTM D256)		Condition ALW / CW	ft-lb/in (J/cm)		
		Condition E-48/50	ft-lb/in		2.50 / 2.00
		LW / CW	(J/cm)		(1.33) / (1.07)
Compressive Strength (ASTM D695)Condition AFlatwise		psi (Mpa)			25,000 (172.4)
Bonding Strength (ASTM D229)Condition A		lb (kg)			1,800 (816.5)
Shear Strength (ASTM D732)Condition APerpendicular		psi (Mpa)	12,000 (82.7)		

TECHNICAL DATA BULLETIN

GRADE: NP318

NEMA: CF

U.L. LISTED: N

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		
Flammability Rating Condition A (UL Bulletin 94)	Class	HB		
ELECTRICAL PROPERTIES				
Breakdown Voltage Condition A (ASTM D149)	kVolts	65		
	Condition D-48/50	4		
Electric Strength Condition A (ASTM D149)	Volts/mil (kV/cm)	480 (189.0)		
	Condition D-48/50	350 (137.8)		
Arc Resistance Condition A (ASTM D495)	sec		10	
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".

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.