

# Specification

NEMA: C

U.L. LISTED: Y <sup>2</sup>

DESCRIPTION: NEMA C is a canvas machining grade for structural and mechanical applications. It has better impact strength than phenolic paper grades. Meets or exceeds MIL-I-24768/16

## TYPICAL PROPERTIES

		UNITS	VALUE		
			Thickness Tested		
			0.0625"	0.125"	0.500"
<b>PHYSICAL PROPERTIES</b>					
<b>Specific Gravity</b> <i>(ASTM D792)</i>		-			1.37
<b>Rockwell Hardness</b> <i>(ASTM D785)</i>	0.250" Build-up	M Scale	100		
<b>Moisture Absorption</b> <i>(ASTM D570)</i>	Condition A	%	3.50		
<b>Flexural Strength</b> <i>(ASTM D790)</i>	Condition A LW / CW	psi (MPa)	18,000 / 17,000 (124.1) / (117.2)		
<b>Flexural Modulus</b> <i>(ASTM D790)</i>	Condition A LW / CW	kpsi (GPa)	1,600 / 1,500 (11.0) / (10.3)		
<b>Tensile Strength</b> <i>(ASTM D638)</i>	Condition A LW / CW	psi (MPa)		12,000 / 9,700 (82.7) / (66.9)	
<b>Izod Impact Strength</b> <i>(ASTM D256)</i>	Condition A LW / CW	ft-lb/in (J/cm)			
	Condition E-48/50 LW / CW	ft-lb/in (J/cm)			3.10 / 2.70 (1.65) / (1.44)
<b>Compressive Strength</b> <i>(ASTM D695)</i>	Condition A Flatwise	psi (MPa)			34,000 (234.4)
<b>Bonding Strength</b> <i>(ASTM D229)</i>	Condition A	lb (kg)			2,500 (1,134.0)
	Condition D-48/50	lb (kg)			2,300 (1,043.3)
<b>Shear Strength</b> <i>(ASTM D732)</i>	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"
<b>THERMAL PROPERTIES</b>				
<b>Temperature Index</b> <sup>1</sup> <i>(UL Bulletin 746b)</i>	Electrical / Mechanical	°C	115 / 125	
<b>Coefficient of Thermal Expansion</b> <i>(IPC-TM 650-2.4.24)</i>	X-axis / Y-axis	" / °C x10 <sup>-6</sup>	20.0 / 22.0	
<b>Flammability Rating</b> <i>(UL Bulletin 94)</i>	Condition A	Class	HB	
<b>ELECTRICAL PROPERTIES</b>				
<b>Breakdown Voltage</b> <i>(ASTM D149)</i>	Condition A	kVolts	20	
	Condition D-48/50	kVolts	5	
<b>Electric Strength</b> <i>(ASTM D149)</i>	Condition A	Volts/mil <i>(kV/cm)</i>	400 <i>(157.5)</i>	
	Condition D-48/50	Volts/mil <i>(kV/cm)</i>	150 <i>(59.1)</i>	
<b>Arc Resistance</b> <i>(ASTM D495)</i>	Condition A	sec	15	
<b>Comparative Tracking Index</b> <i>(ASTM D3638)</i>		Volts	155	

<sup>1</sup> 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.

The data within this document is for reference only. Values above are typical for this grade of material.

It is the responsibility of the end user of this information to validate the data in this document. K&E Plastics, Inc. assumes no liability for the use of this data.

Users are urged to contact K&E Plastics, Inc. to determine if the Specification has been revised.