

Specification

NEMA: G-5 / G-9

U.L. LISTED: Y ²

DESCRIPTION: Woven glass fabric, melamine resin laminate. Is very hard, flame resistant, machining grade with excellent electrical properties in high humidity conditions. Has high physical strength and excellent arc resistance. Meets MIL-I-24768/1 type GME, MIL-I-24768/8 type GMG and IEC 60893-3-3-MF GC 201.

TYPICAL PROPERTIES

		UNITS	VALUE		
			Thickness Tested		
			0.0625"	0.125"	0.500"
PHYSICAL PROPERTIES					
Specific Gravity <i>(ASTM D792)</i>		-			1.85
Rockwell Hardness <i>(ASTM D785)</i>	0.250" Build-up	M Scale	115		
Moisture Absorption <i>(ASTM D570)</i>	Condition A	%	0.60		
Flexural Strength <i>(ASTM D790)</i>	Condition A LW / CW	psi (MPa)	61,600 / 51,100 (424.7) / (352.3)		
Flexural Modulus <i>(ASTM D790)</i>	Condition A LW / CW	kpsi (GPa)	2,000 / 1,700 (13.8) / (11.7)		
Tensile Strength <i>(ASTM D638)</i>	Condition A LW / CW	psi (MPa)		44,000 / 34,000 (303.4) / (234.4)	
Izod Impact Strength <i>(ASTM D256)</i>	Condition A LW / CW	ft-lb/in (J/cm)			
	Condition E-48/50 LW / CW	ft-lb/in (J/cm)			12.50 / 8.50 (6.67) / (4.54)
Compressive Strength <i>(ASTM D695)</i>	Condition A Flatwise	psi (MPa)			70,000 (482.6)
Bonding Strength <i>(ASTM D229)</i>	Condition A	lb (kg)			1,900 (861.8)
Shear Strength <i>(ASTM D732)</i>	Condition A Perpendicular	psi (MPa)	18,000 (124.1)		

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TYPICAL PROPERTIES (continued)

	UNITS	VALUE		
		Thickness Tested		
		0.0625"	0.125"	0.500"
THERMAL PROPERTIES				
Temperature Index ¹ <i>(UL Bulletin 746b)</i>	Electrical / Mechanical	°C	140 / 140	
Coefficient of Thermal Expansion <i>(IPC-TM 650-2.4.24)</i>	X-axis / Y-axis	" / °C x10 ⁻⁶	15.0 / 18.0	
Flammability Vertical <i>(UL Bulletin 94)</i>	Condition A	Class	V-0	
ELECTRICAL PROPERTIES				
Dissipation Factor @ 1 MHz <i>(ASTM D150)</i>	Condition A	-		
	Condition D-24/23	-	0.015	
Relative Permittivity @ 1 MHz <i>(ASTM D150)</i>	Condition A	-		
	Condition D-24/23	-	7.03	
Breakdown Voltage <i>(ASTM D149)</i>	Condition A	kVolts	65	
	Condition D-48/50	kVolts	55	
Electric Strength <i>(ASTM D149)</i>	Condition A	Volts/mil (kV/cm)	540 (212.6)	
	Condition D-48/50	Volts/mil (kV/cm)	550 (216.5)	
Arc Resistance <i>(ASTM D495)</i>	Condition A	sec	185	
Comparative Tracking Index <i>(ASTM D3638)</i>		Volts	600	

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.

Only applies to thicknesses greater than 0.024".

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.