

# P95

## TECHNICAL DATA BULLETIN

GRADE: P95

NEMA: GPY

U.L. LISTED: Y

DESCRIPTION: Woven glass fabric combined with a high temperature polyimide resin system engineered to maintain excellent physical properties at 240°C. P95 has a low coefficient of thermal expansion, high mechanical strength and excellent heat resistance.

### TYPICAL PROPERTIES

		UNITS	VALUE		
			Thickness Tested		
			0.062"	0.125"	0.500"
<b>PHYSICAL PROPERTIES</b>					
<b>Specific Gravity</b> (ASTM D792)		-			1.84
<b>Rockwell Hardness</b> (ASTM D785)	0.250" Build-up	M Scale	120		
<b>Moisture Absorption</b> (ASTM D570)	Condition A	%	0.35		
<b>Flexural Strength</b> (ASTM D790)	Condition A LW / CW	psi (Mpa)	78,000 / 66,000 (537.8) / (455.1)		
<b>Flexural Modulus</b> (ASTM D790)	Condition A LW / CW	kpsi (Gpa)	3,200 / 2,800 (22.1) / (19.3)		
<b>Tensile Strength</b> (ASTM D638)	Condition A LW / CW	psi (Mpa)		48,000 / 40,000 (330.9) / (275.8)	
<b>Izod Impact Strength</b> (ASTM D256)	Condition A LW / CW	ft-lb/in (J/cm)			11.50 / 7.50 (6.14) / (4.00)
<b>Compressive Strength</b> (ASTM D695)	Condition A Flatwise	psi (Mpa)			70,000 (482.6)
<b>Bonding Strength</b> (ASTM D229)	Condition A	lb (kg)			1,500 (680.4)
<b>Shear Strength</b> (ASTM D732)	Condition A Perpendicular	psi (Mpa)	27,000 (186.2)		

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## TYPICAL PROPERTIES (continued)

	UNITS	VALUE		
		Thickness Tested		
		0.062	0.125	0.5
<b>THERMAL PROPERTIES</b>				
<b>Maximum Operating Temperature</b> <sup>1</sup>	°C			240
<b>Coefficient of Thermal Expansion</b> (IPC-TM 650-2.4.24) X-axis / Y-axis	" / °C x10 <sup>-6</sup>	10.0 / 13.0		
<b>Tg by DMA</b>	°C			200
<b>Flammability Rating</b> Condition A (UL Bulletin 94)	Class	HB		
<b>ELECTRICAL PROPERTIES</b>				
<b>Dissipation Factor @ 1 MHz</b> (ASTM D150)	Condition A	-		
	Condition D <sub>1</sub> -24/23	-	0.010	
<b>Relative Permittivity @ 1 MHz</b> (ASTM D150)	Condition A	-		
	Condition D <sub>1</sub> -24/23	-	4.80	
<b>Breakdown Voltage</b> (ASTM D149)	Condition A	kVolts	65	
	Condition D-48/50	kVolts	55	
<b>Electric Strength</b> (ASTM D149)	Condition A	Volts/mil (kV/cm)	850 (334.6)	
	Condition D-48/50	Volts/mil (kV/cm)	750 (295.3)	
<b>Arc Resistance</b> (ASTM D495)	Condition A	sec		130
<b>Comparative Tracking Index</b> (ASTM D3638)		Volts		240

<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.

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.