

SP527

TECHNICAL DATA BULLETIN

GRADE: SP527

U.L. LISTED: N

DESCRIPTION: SP527 is a woven glass fabric combined with a high temperature static dissipative epoxy resin. SP527 has superior machining properties, and is capable of producing thin walls with high strength for finely machined parts. It has excellent mechanical strength at elevated temperatures. The continuous operating temperature is over 180°C. Short excursions to temperatures approaching 300°C, such as in wave soldering or IR re-flow, will not adversely affect the life of this material.

TYPICAL PROPERTIES

		UNITS	VALUE	
			Thickness Tested	
			0.25	
PHYSICAL PROPERTIES				
Specific Gravity (ASTM D792)		-		1.82
Rockwell Hardness (ASTM D785)	0.250" Build-up	M Scale		116
Moisture Absorption (ASTM D570)	Condition A	%		0.09
Flexural Strength (ASTM D790)	Condition A	psi		62,600 / 56,300
	LW / CW	(Mpa)		(431.6) / (388.2)
	Condition E-1/150: T-150	psi		52,200 / 45,200
	LW / CW	(Mpa)		(359.9) / (311.6)
Flexural Modulus (ASTM D790)	Condition A	kpsi		3,100 / 3,100
	LW / CW	(Gpa)		(21.4) / (21.4)
	Condition E-1/150: T-150	kpsi		2,800 / 2,700
	LW / CW	(Gpa)		(19.3) / (18.6)
Tensile Strength (ASTM D638)	Condition A	psi		55,900 / 44,600
	LW / CW	(Mpa)		(385.4) / (307.5)
Izod Impact Strength (ASTM D256)	Condition A	ft-lb/in		21.60 / 17.60
	LW / CW	(J/cm)		(11.53) / (9.39)
Compressive Strength (ASTM D695)	Condition A	psi		70,000
	Flatwise	(Mpa)		(482.6)
	Condition E-1/150: T-150	psi		15,500
	Flatwise	(Mpa)		(106.9)

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TYPICAL PROPERTIES (continued)

	UNITS	VALUE		
		Thickness Tested		
			0.25	
THERMAL PROPERTIES				
Maximum Operating Temperature ¹	°C		300	
Coefficient of Thermal Expansion (IPC-TM 650-2.4.24)	" / °C X-axis / Y-axis x10 ⁻⁶		17.0 / 17.0	
Tg by DMA	°C		166	

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.

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