



# Spaulding ENGINEERING DATA SHEET

## GRADE: SPAULDITE® G-10-773 LAMINATE SHEET

Reprint of: \_\_\_\_\_ Issued: \_\_\_\_\_

Spaldite® Grade G-10-773 is a glass fabric base, epoxy resin laminate designed for high mechanical strength and excellent electrical properties under both dry and humid conditions. G-10-773 exceeds the requirements of NEMA G-10, MIL-P-181777 and Federal Specification LP 509.

### PROPERTY CHARACTERISTICS

PROPERTY	ASTM TEST METHOD	CONDITIONING & TYPE OF TEST	THICKNESS INCHES	AVERAGE TYPICAL VALUES		INDUSTRY REQUIREMENTS	
				ENGLISH	SI	ENGLISH	SI
<b>ELECTRICAL</b>							
Dielectric Breakdown (Parallel-Taper Pin)	D-229	A D-48/50	.062	100 kV 50 kV	100 kV 50 kV	≥55 kV ≥50 kV	≥55 kV ≥50 kV
Dissipation Factor (1 MHz)	D-229	A D-48/50	.062	0.020 0.022	0.020 0.022	≤0.025 ≤0.040	≤0.025 ≤0.040
Permittivity (1 MHz)	D-229	A D-48/50	.062	4.4 4.6	4.4 4.6	≤5.2 ≤5.8	≤5.2 ≤5.8
Surface Resistance	D-257	C-96/35/90	.062	1.0 X 10 <sup>4</sup> MΩ	1.0 X 10 <sup>4</sup> MΩ	≥ 1.0 X 10 <sup>4</sup> MΩ	≥ 1.0 X 10 <sup>4</sup> MΩ
Volume Resistivity	D-257	C-96/35/90	.062	1.0 X 10 <sup>5</sup> MΩ-cm	1.0 X 10 <sup>5</sup> MΩ-cm	NR	NR
<b>MECHANICAL</b>							
Bonding Strength	D-229	A D-48/50	.500 .500	2,600 lbs 2,600 lbs	11.6 kN 11.6 kN	≥ 2,200 lbs ≥ 2,000 lbs	≥ 9.8 kN ≥ 8.9 kN
Compressive Strength (Flatwise)	D-229	A	.062	48.0 ksi	330.9 MPa	NR	NR
Flexural Strength	D-229	A Lengthwise Crosswise	.062 .062	80.0 ksi 55.0 ksi	551.7 MPa 379.2 MPa	≥ 60.0 ksi ≥ 50.0 ksi	MPa ≥ 413.7 ≥ 334.7
Izod Impact Edgewise Notched	D-256	E-48/50 Lengthwise Crosswise	.062 .062	10.0 ft-lbs/in 7.0 ft-lbs/in	.53 J/mm .37 J/mm	≥ 10.0 ft-lbs/in ≥ 6.3 ft-lbs/in	≥ .53 J/mm ≥ .34 J/mm
Tensile Strength	D-229	A Lengthwise Crosswise	.020-.500 .020-.500	49.0 ksi 34.0 ksi	337.8 MPa 234.4 MPa	≥ 45.0 ksi ≥ 30.0 ksi	MPa ≥ 310.3 ≥ 206.9
<b>PHYSICAL</b>							
Density	D-792	A	All	.063 lbs/in <sup>3</sup>	1.75 g/cm <sup>3</sup>	NR	NR
Water Absorption	D-229	D-24/23	.062	0.2%	0.2%	≤ 0.25%	≤ 0.25%

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