

Grade LE Linen Phenolic

Grade LE linen phenolic is similar to grade L with improved moisture resistance. It is suitable for electrical application in moderate humidity conditions. It's designated by MIL-I-24768/13 Type FBE and the NEMA grade is LE.

Property	Units	Grade LE Linen Phenolic
Physical		
Specific Gravity	-	1.34
Moisture Absorption (.062")	%	1.90
Mechanical		
Rockwell Hardness (.062")	M Scale	100
Flexural Strength (.062") LW	psi	22,000
CW	psi	16,000
Flexural Modulus (.062") LW	psi	1,600,000
CW	psi	1,200,000
Tensile Strength (.125") LW	psi	13,000
CW	psi	9,000
Izod Impact Strength E-48/50 (.500") LW	ft-lb/in	1.35
CW	ft-lb/in	1.10
Compressive Strength flatwise (.500")	psi	36,000
Bond Strength (.500")	lbs	1,900
Shear Strength (perpendicular) (.062")	psi	13,500
Thermal		
Maximum Operating Temperature	°F	257
Coefficient of Thermal Expansion (.062") X-axis	in/in/°F	10×10^{-6}
Y-axis	in/in/°F	10.5×10^{-6}
Flammability Rating - U. L. 94		HB
Electrical		
Permittivity (.062") Condition D-24/23	-	5.5
Dissipation Factor (.062") Condition D-24/23	-	.065
Breakdown Voltage Condition - A (.062") D-48/50	V	50,000 5,000
Electric Strength Condition - A (.062") D-48/50	V/mil	625 500
Arc Resistance (.125") D-495	sec	15
Comparative Tracking Index (.125") D3638	-	170

LW – Length Wise of the sheet, direction of manufacturing
 CW – Cross Wise, perpendicular to Length Wise

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.