

DATA SHEET

PAPER BASE PHENOLIC NEMA GRADE XX

BASE MATERIAL	Paper
RESIN	Phenolic
MILITARY SPECIFICATION	MIL-P-3115
MIL-SPEC TYPE	PPG
TENSIL STRENGTH	
Lengthwise	16,000
Crosswise	13,000
COMPREHENSIVE STRENGTH (psi)	
Flatwise	34,000
Edgewise	23,000
FLEXURAL STRENGTH, MIN FOR 1/8 -ILN SPECIMEN (psi)	
Lengthwise	15,000
Crosswise	14,000
MODULUS OF ELASTICITY, FLEXURAL	
Lengthwise	1,400 m
Crosswise	1,100 m
SHEAR STRENGTH (psi)	11,000
IZOD IMPACT, MIN (ft-lb per in.of notch)	
Flatwise	.4
Edgewise	.35
HARDNESS, ROCKWELL (M - scale)	105
SPECIFIC GRAVITY	1.34
COEFFICIENT OF THERMAL EXPANSION (per deg C)	2 X 10 ⁻⁵
WATER ABSORPTION, MAX IN 25HR (%)	
1/16 in.	2
1/2 in.	.55
DIELECTRIC STRENGTH, PERPENDICULAR TO lamination, shor-time test (v-mil)	
1/16 in.	700
1/8 in.	500
DISSIPATION FACTOR, MAX 1 MC, ASTM D-150, Condition A	.045
DIELECTRIC CONSTANT, MAX 1 MC, ASTM D-150, Condition A	5.5
INSULATION RESISTANCE, 96 HR, 90 PERCENT RH, 95 (megohms)	60
BONDING STRENGTH, MIN (lb)	800
THERMAL CONDUCTIVITY (cal-cm/sec-sq cm-deg C)	7 X 10 ⁻⁴
MAX. OPERATING TEMP. °F.	285
Machine Design, June 16, 1966	



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