

DATA SHEET

PAPER BASE PHENOLIC NEMA GRADE XP

BASE MATERIAL	Paper
RESIN	Phenolic
MILITARY SPECIFICATION	
MIL-SPEC TYPE	
TENSIL STRENGTH	
Lengthwise	12,000
Crosswise	9,000
COMPREHENSIVE STRENGTH (psi)	
Flatwise	25,000
Edgewise	
FLEXURAL STRENGTH, MIN FOR 1/8 -ILN SPECIMEN (psi)	
Lengthwise	14,000
Crosswise	12,000
MODULUS OF ELASTICITY, FLEXURAL	
Lengthwise	1,200 m
Crosswise	900 m
SHEAR STRENGTH (psi)	8,000
IZOD IMPACT, MIN (ft-lb per in.of notch)	
Flatwise	
Edgewise	
HARDNESS, ROCKWELL (M - scale)	95
SPECIFIC GRAVITY	1.33
COEFFICIENT OF THERMAL EXPANSION (per deg C)	2×10^{-5}
WATER ABSORPTION, MAX IN 25HR (%)	
1/16 in.	3.6
1/2 in.	
DIELECTRIC STRENGTH, PERPENDICULAR TO lamination, shor-time test (v-mil)	
1/16 in.	650
1/8 in.	470
DISSIPATION FACTOR, MAX 1 MC, ASTM D-150, Condition A	.06
DIELECTRIC CONSTANT, MAX 1 MC, ASTM D-150, Condition A	6
INSULATION RESISTANCE, 96 HR, 90 PERCENT RH, 95 (megohms)	
BONDING STRENGTH, MIN (lb)	1000
THERMAL CONDUCTIVITY (cal-cm/sec-sq cm-deg C)	7×10^{-4}
MAX. OPERATING TEMP. °F.	285
Machine Design, June 16, 1966	



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