

PROPERTY	ASTM or UL TEST	XXX 254	LE 221	CE 51F33	400 NP315	G-3 NP504	G-5 259-2	G-7 MC507U	G-9 H12426	G-10 H22033	G-11 MC511A
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PHYSICAL											
BASE MATERIAL		Paper	Fine Weave Fabric	Medium Weave Fabric	Medium Weave Fabric	Glass Cloth	Glass Cloth	Glass Cloth	Glass Cloth	Glass Cloth	Glass Cloth
RESIN		Phenolic	Phenolic	Phenolic	Phenolic	Phenolic	Melamine	Silicone	Melamine	Epoxy	Epoxy
COLOR		Tan	Tan	Natural	Black		Grey		Grey	Green	
DENSITY, g/cm <sup>3</sup>		1.34	1.34	1.37	1.4	1.83	1.9	1.82	1.9	1.85	1.85
WATER ABSORPTION (1/8" thick), %	D229	0.4	0.7 - 1.9	1.1	1.1-2.2	0.2	0.4	0.25	0.2	0.05	0.10
HARDNESS ROCKWELL "M"	D229	110	100	105	90-109	105	115	100	120	115	115
TENSILE (WITH GRAIN), psi	D229	15,000	14,000	13,000	10,000-37,000	42,000	40,000	-	45,000	50,000	-
COMPRESSIVE (FLATWISE), psi	D229	36,000	38,000	37,000	38,000-45,000	63,000	65,000	47,000	65,000	50,000	65,000
FLEXURAL (FLATWISE WITH GRAIN) (1/8" thick), psi	D229	20,000	22,000	19,000	19,000-21,000	18,000	50,000	21,500	55,000	60,000	75,000
BONDING STRENGTH (1/2" thick), lb	D229	950 - 1,200	1,800	2,000	1,800-2,200	1,500	1,800	650	1,700 - 2,300	2,600	2,200
IMPACT STRENGTH (IZOD. EDGEWISE WITH GRAIN) (ft-lb/in. notch)	D732	0.5	1.5	1.8	1.7	11.0	10.0	13.5	13.0	10.0	10.5

ELECTRICAL											
DIELECTRIC STRENGTH (PERPENDICULAR) (1/8" thick) (VPM) (short time)	D229	600	350	200	-	375	300	350	-	550	-
DISSIPATION FACTOR (at 106cycles/sec)	D229	0.037	0.065	-	-	-	0.019	0.002	0.018	0.032	0.025
DIELECTRIC CONSTANT (at 106cycles/sec)	D229	5.2	5.1	-	-	-	6.3*	-	7.2	5.0	-
VOLUME RESISTIVITY (megohm-cm)	D229	3 x 10 <sup>7</sup>	7 x 10 <sup>4</sup>	-	-	-	6 x 10 <sup>7</sup>	4.0 x 10 <sup>8</sup>	1.5 x 10 <sup>7</sup>	6 x 10 <sup>6</sup>	-
SURFACE RESISTIVITY (megohms)	D229	7 x 10 <sup>5</sup>	6 x 10 <sup>4</sup>	-	-	-	6 x 10 <sup>6</sup>	5.0 x 10 <sup>8</sup>	1.5 x 10 <sup>7</sup>	1 x 10 <sup>6</sup>	-

THERMAL											
Max. Temp (°F)		284	257	257	293	338	284	428	284	266	356

\* These values are for 1/2 inch thickness

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