



Redco™ PHENOLIC

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					
RESIN		Phenolic	Phenolic	Phenolic	Phenolic	Phenolic	Melamine	Silicone	Melamine	Epoxy	Epoxy
COLOR		Tan	Tan	Natural	Natural		Grey		Grey	Green	
DENSITY, in ³ /lb		37.1	37.1	37.1	38.8	50.7	52.6	50.4	52.6	51.2	51.2
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), MPa	D229	103.4	96.5	89.6	68.9-255	290	275.8	-	310.3	344.7	-
COMPRESSIVE (FLATWISE), Mpa	D229	248.2	262	255.1	262-310	434	448.2	324	448.2	344.7	448
FLEXURAL (FLATWISE WITH GRAIN) (1/8" thick), Mpa	D229	137.9	151.7	131	131-145	124	344.7	148	379.2	413.7	517
BONDING STRENGTH (1/2" thick), Kg	D229	431 - 541	816	907	816-998	680	816	295	771 - 1040	1180	998
IMPACT STRENGTH (IZOD, EDGEWISE WITH GRAIN) (J/m. notch)	D732	26.7	80.1	96.1	90.8	587	534	721	694	534	561

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 ⁷	7 x 10 ⁴	-	-	-	6 x 10 ⁷	4.0 x 10 ⁸	1.5 x 10 ⁷	6 x 10 ⁶	-
SURFACE RESISTIVITY (megohms)	D229	7 x 10 ⁵	6 x 10 ⁴	-	-	-	6 x 10 ⁶	5.0 x 10 ⁸	1.5 x 10 ⁷	1 x 10 ⁶	-

THERMAL											
Max. Temp (°C)		140	125	125	145	170	140	220	140	130	180

* These values are for 1/2 inch thickness

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