

3M™ ThermaVolt AR 15 mil Electrical Insulation Paper

Preliminary Data Sheet

April 2012

ThermaVolt AR Electrical Insulation Paper is a new electrical insulation for motors, generators and transformers. ThermaVolt AR exhibits good mechanical properties, specifically tensile and tear strength. High inorganic content helps to maintain longterm temperature stability. ThermaVolt AR is qualified for use as major ground insulation in electrical insulation systems rated through Class 220(R) per UL 1446 and IEC Std. 61857. Applications include ground and layer insulation in dry-type transformers, as well spiral-wound core tubes and interwinding insulation in strip-wound coils and electromagnet coils. 3M Innovative Paper Technologies UL Recognized Insulation Systems (File No. 65007) may be found on UL's Electrical Insulation Systems database at <http://database.ul.com/systems>.

		ASTM Test Method	ThermaVolt AR 15 mil
Nominal Thickness	mm mil	D-645	0.38 15
Basis Weight	g/m ² lb/yd ²	D-202	501 .94
Tensile Strength, MD	lb/inch N/cm	D-828	190 333
Tensile Strength, CD	lb/inch N/cm	D-828	82 144
Tensile Elongation, MD	%	D-828	4.7
Tensile Elongation, CD	%	D-828	3.8
Elmendorf Tear, MD	g N	D-689	824 8.1
Elmendorf Tear, CD	g N	D-689	2184 21.4
Dielectric Breakdown Voltage	kV	D-149	7.4

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