

AVP Phenolic Jackpanels

Electrical Properties

Relative Thermal Index Electrical and Mechanical ASTM D 790		130°
U.L. 94 Flame Classification	0.028" - 94HB 0.062" - 94HB	
Arc Resistance (dry) ASTM D 495-89	1/8" 41 sec 1/2" 54 sec	
Dielectric Strength ASTM D 229, Condition A	S/S (step by step)	S/T (short time)
1/8" (3.17 mm)	230 volts/mil	340volts/mil
1/2" (12.7 mm)	70 volts/mil	130 volts/mil
Dissipation Factor @ 1.0 kHz ASTM D 150-92	1/8" (3.17 mm) 1/2" (12.7 mm)	0.0827 01087
Dielectric Constant	1/8" (3.17 mm) 1/2" (12.7 mm)	7.57 7.67
Oil Compatibility: Arboron® shows no adverse effect on electrical insulating oil / transformer oil, as per ASTM D 3455 test method		
Material Safety Data Sheet	MSDS Code Conlam 0036	

Mechanical Properties

Density Specific Gravity		86.4 lbs/ft3 1.39 g/cm3
Tensile Strength ASTM D 638	M.D. C.D.	30,000 psi (206,842 kPa) 19,000 psi (131,000. kPa)
Flexural Strength ASTM D 790-86	M.D. C.D.	30,000 psi (206,842 kPa) 24,000 psi (165,474 kPa)
Compressive Strength ASTM D 695-89	Flatwise Edgewise	45,000 psi (310,264 kPa) 26,000 psi (179,263 kPa)
Elastic Modulus ASTM D 790-86	M.D. C.D.	2,000 ksi 1,300 ksi
Impact Strength Edgewise	M.D. C.D.	1.0 ft lbs/in .82 ft lbs/in
Bond Strength ASTM D 229-86		2,000 psi
Rockwell Hardness ASTM D 785-89	M scale	113
Water Absorption ASTM D 570		3.58%
Thickness Tolerance		in accordance with NEMA standards L/1 1989
Wrap or Twist Tolerances		in accordance with NEMA standards L/1 1989

Arboron

AVP uses Arboron®, a melamine-faced solid phenolic laminate impregnated with thermosetting resins consolidated under high pressure and temperature into dense, uniform sheets with good electrical and mechanical properties.

Arboron® complies with NEMA thickness and flatness standards and is listed by Underwriters Laboratories Inc. under Card #E96516 (M), dated December 30, 1992.

The superior smooth and dense surface of Arboron® provides excellent chemical and abrasion resistance. It has a very high strength-to-weight ratio, but is only half the weight of aluminum.

Arboron® is widely used in power distribution applications requiring dielectric strength, low moisture absorption, dimensional stability and mechanical properties.

The properties for Arboron® represent typical test values. Typical values should not be used for specification purposes and the suitability for application is the sole responsibility of the user.

Update to October 31, 2004