

Vulcanized Fibre Specifications

UL File No.: E55656 HB-77  
 ASTM Spec.: ASTM D-710, Commercial  
 Military Spec.: Mil-F-1148, C-H; Mil-F-13526, Red Sheet  
 NEMA Grade: Vulcanized Fibre, Commercial Grade

**Properties**  
 High mechanical & dielectric strength. Good shock absorbing & wear resisting qualities. Excellent punching, forming, & turning characteristics. Semi-hard & has a good surface finish.

**Thickness Range**  
 0.010" to 1.000"  
 Note - Thickness over 0.102" is Laminated Built-Up Fibre.

**Applications**  
 A general purpose mechanical & electrical grade normally recommended where a special requirement is not indicated. High dielectric strength & unusual mechanical strength afford a broad application base. Typical applications include washers, insulating plates, arc barriers, switch & appliance insulation, terminal block covers, coil spool heads & formed parts.

**Color**  
 Grey, Black, Red, White

**Form**  
 Sheet, Roll and Coil

Property	Thickness (in)	Unit	ASTM Test Method	Typical Value
Density	1/16	gm/cc	D-619	1.20
Specific Volume	1/16	cu in/lb		23.0
<b>Tensile Strength</b>				
MD	1/16	psi	D-638	18,000
CD	1/16	psi	D-638	9,000
<b>Modulus of Elasticity in Flexural x 10<sup>5</sup></b>				
MD	1/16		D-790	10
CD	1/16		D-790	7
<b>Modulus of Elasticity in Tension x 10<sup>5</sup></b>				
MD	1/16		D-638	12
CD	1/16		D-638	8
<b>Flexural Strength</b>				
MD	1/16	psi	D-790	26,000
CD	1/16	psi	D-790	16,000
Compressive Strength	1/16	psi	D-695	35,000
<b>Impact Strength</b>				
MD	1/16	ft lbs/in	D-256	2.0
CD	1/16	ft lbs/in	D-256	1.8
Rockwell Hardness, R Scale	1/16	divisions	D-785	80
Bond Strength	1/16	psi	D-952	900
Dielectric Strength	1/64	volts/mil	D-149	230
	1/16	volts/mil	D-149	200

	1/8	volts/mil	D-149	195
Arc Resistance	1/16	sec	D-495	80
Comparative Tracking Index*	0.120	volts		400-599
Thermal Conductivity, 149°F		btu/hr/ft 2 /°F/ft	C-177	0.168
Specific Heat		btu/lb/°F	C-351	0.403
Thermal Expansion x 10 <sup>5</sup>				
MD		in/in/°F	D-696	1.1
CD		in/in/°F	D-696	1.7
Dimensional Change, Thickness		%		1.00
(Per Percent Change MD		%		0.10
in Moisture Content) CD		%		0.25
Water Absorption, 24hrs	1/16	%	D-570	66
Coefficient of Friction				
Fibre on Fibre				0.16
Fibre on Smooth Cast Iron				0.21
Flammability	1/16	in/min	D-635	0.5
Flammability, UL 94*	0.028,0.058,0.120			94HB
Heat Resistance, Continuous*				
Electrical	0.028,0.058,0.120	°C		115
Mechanical	0.028,0.058,0.120	°C		110
Hot-Wire Ignition*	0.028,0.058	sec		15-29
	0.120	sec		60-119
High-Ampere Arc Ignition*	0.028,0.058,0.120	sec		120+
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