

## Material Series: MB4000

### SERIES DESCRIPTION & APPLICATION

MB4000 is the best high track resistant material. It is a flame retardant polyester molding compound with moderate strength, excellent electrical properties and exceptional arc and track resistance. When higher track resistance is critical – such as porcelain replacement in insulators or other electrical applications – the 4000 Series performs. Key features include: Incline Plane Tracking of over 1,500 minutes and rated UL 94 5VA @1.65mm. UL file number **E80533**

General Material Properties		
Property (Test Method)	Value	Units
Density (ASTM D792)	1.7-1.9	g/cm <sup>3</sup>
Mold Shrinkage (ASTM D955)	0.0005-0.003	in/in
Water Absorption (ASTM D570)	0.12	%
Barcol Hardness (ASTM D2583)	41-47	Barcol Units

Mechanical Material Properties (Net Shape Molded Coupons)			
Property (Test Method)	Value (US)	Value (Metric)	Units
Tensile Strength (ASTM D638)	9,000-10,000	60-70	psi (MPa)
Flexural Strength (ASTM D790)	16,500-18,000	115-125	psi (MPa)
Flexural Modulus (ASTM D790)	1.7-1.9 x 10 <sup>6</sup>	11.7-13.1	psi (GPa)
Compressive Strength (ASTM D695)	21,000-24,000	145-165	psi (MPa)
Notched Izod Impact (ASTM D256)	9.5-10.5	505-560	ft-lb/in (J/m)

Thermal and Electrical Material Properties			
Property (Test Method)	Value (US)	Value (Metric)	Units
Flammability (UL 94 5VA)	Pass 0.065	Pass 1.65	in (mm)
Heat Deflection Temperature (ASTM D648)	>500	>260	°F (°C)
UL RTI Elec, Imp, Str (UL 746B)	-	130, 130, 130	°C
Dielectric Strength (ASTM D149)	350+	13.8+	Volts/mil (kV/mm)
Arc Track Resistance (ASTM D495)	185+	185+	Seconds
Incline Plane Tracking (ASTM D2303-85)	1500+	1500+	Minutes

All property values are based on test performed on standard ASTM test samples and according to standard ASTM test methods unless otherwise indicated. This information is offered solely for your consideration and is to be used as a guide only. No other warranty is implied.

### Contact Us:

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