



# Aurora Technologies

## Material Data Sheet

### **NEMA Grade LE**

#### **Description:**

Linen based Phenolic provides more mechanical strength than paper grades and have a finer surface with better machinability. These materials are used for gears, pinions, bearings, bushings and many structural applications.

#### **Typical Properties:**

	<u>Units</u>	<u>Grade LE</u>
<b>Physical</b>		
Color	-	Natural/Black
Density	lb/in <sup>3</sup>	.050
Water Absorption	%	1.0
Hardness	Rockwell M	105
Tensile	PSI	15,000
Compressive	PSI	38,000
Flexural	PSI	25,000
Max. Operating Temp.		
Electrical	C	115
Mechanical	C	125
Impact Strength	ft-lb/in	1.5
Shear	PSI	14,000
<b>Electrical</b>		
Dielectric Strength	vpm, short time	350
Dissipation Factor	@10 <sup>6</sup> cycles/sec	0.060
Dielectric Constant	@10 <sup>6</sup> cycles/sec	5.3
Volume Resistivity	megohm-cm	7x10 <sup>4</sup>
Surface Resistivity	megohm	6x10 <sup>4</sup>
Arc Resistance	seconds	n/a
Parallel Dielectric	kv	70

\*\*All of the properties listed above are typical values. These properties may vary based upon the manufacturer and environmental conditions. If specific criterion is to be met, then please contact one of our sales representatives for further evaluation.