

# PHENOLIC GRADE LE

## Fine-Weave Cotton-Fabric Reinforced Phenolic, Electrical Grade (NEMA LE)

Cotton-phenolic toughness, machined sharp.

Cotton-fabric reinforced phenolic laminate combines woven cotton cloth with a high-bond-strength phenolic resin. The result is a tough, machinable composite with excellent impact strength, low noise in gear and bearing service, and outstanding fatigue resistance under cyclic loading. A go-to material for industrial gears, bushings, rollers, and structural fixtures.

<b>GENERAL</b>	
Flammability rating	<b>94HB</b>
Water absorption 24 hours	<b>1.8</b>
Specific gravity	<b>1.34</b>
<b>MECHANICAL</b>	
M-scale hardness	<b>100</b>
Shear strength	<b>13,500 psi</b> 93 MPa
Tensile strength	<b>36,000 psi</b> 245 MPa
Compressive strength	<b>13,000 psi</b> 89 MPa
Flexural strength LW -A 0.125"	<b>18,000 psi</b> 120 MPa
Bond strength	<b>1,900 psi</b> 13 MPa
Izod impact strength at 49°C LW	<b>1.35</b>

NEMA LI 1 – C, CE, L, LE GRADES

MIL-I-24768/13-17

ROHS / REACH

### APPLICATIONS

- Bushings
- Pulleys
- Electrical insulating components
- Spacers
- Pinions
- Guides

### STANDARD COLORS

Natural / Black Opaque

### OPERATING ENVIRONMENT

Maximum operating temperature **125 °C**  
255 °F