

# Nextel® 440 Alumina/Silica/Boria Fiber (Al<sub>2</sub>O<sub>3</sub> 70/SiO<sub>2</sub> 28/B<sub>2</sub>O<sub>3</sub> 2)

**Grade:** Nextel® 440

**Formula:** Al<sub>2</sub>O<sub>3</sub> 70/SiO<sub>2</sub> 28/B<sub>2</sub>O<sub>3</sub> 2

**Length:** 1000m

**Filament Diameter:** 0.011mm

**Number Of Filaments:** 390

**Tex Number:** 110

**UOM Code:** 480-761-29

**SKU:** 1000010196-group

**Product Code:** AJ62-FB-000110

## Material Properties for Ceramics

### Chemical Resistance

Element	Value
Acids - concentrated	Fair
Acids - dilute	Good
Alkalis	Poor-Fair

### Electrical Properties

Element	Value
Dielectric constant	5.7@9.4GHz

### Physical Properties

Element	Value
Refractive index	1.62
Density( gcm <sup>3</sup> )	3.05

### Thermal Properties

Element	Value
Sublimation point( C )	1800
Upper continuous use temperature( C )	1350-1650

<b>Element</b>	<b>Value</b>
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	1000@500°C
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	5@20-1000°C

## **Mechanical Properties**

<b>Element</b>	<b>Value</b>
Tensile modulus( GPa )	185
Tensile strength( MPa )	2000