

## Boron Nitride Filled Silicone Gasket

Catlog Number: FCSM-0089

### • Description

Electrically insulating but thermally conductive gasket material designed for heat dissipation in high-power fuel cell stack manifolds.

### • Basic Information

Material Composition: Silicone / Boron Nitride

Thickness ( $\mu\text{m}$ ): 500

Density ( $\text{g}/\text{cm}^3$ ): 1.45

Surface Resistance ( $\text{m}\Omega\cdot\text{cm}^2$ ): Insulator

Tensile Strength (MPa): 8

Thermal Conductivity ( $\text{W}/\text{m}\cdot\text{K}$ ): 2.5

Operating Temp Max ( $^{\circ}\text{C}$ ): 250

Flexural Strength (MPa): N/A

Corrosion Resistance ( $\mu\text{A}/\text{cm}^2$ ): Excellent

Contact Angle ( $^{\circ}$ ): 110

Gas Permeability ( $\text{cm}^3/\text{cm}^2\cdot\text{s}$ ):  $< 10^{-9}$

Coefficient of Thermal Expansion ( $10^{-6}/\text{K}$ ): 180

Shore Hardness: 65 (Shore A)

Water Uptake (%):  $< 0.5$

Ash Content (%): 35 (Solid)

Mean Pore Size ( $\mu\text{m}$ ): N/A

Compressive Strength (MPa): 10

Electrical Conductivity ( $\text{S}/\text{cm}$ ):  $< 10^{-13}$

Specific Surface Area ( $\text{m}^2/\text{g}$ ): 15

Young's Modulus (GPa): 0.015

Chemical Stability: Chemically Inert

Coating Material: None

Surface Roughness (Ra): 1.2

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