

## Mica-Based Composite Gasket

Catlog Number: FCSM-0082

### • Description

A structural gasket material reinforced with phlogopite mica, designed for extreme high-temperature sealing in SOFC and electrolysis stacks.

### • Basic Information

Material Composition: Phlogopite Mica / Resin

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

Density ( $\text{g}/\text{cm}^3$ ): 2.1

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

Tensile Strength (MPa): 25

Thermal Conductivity ( $\text{W}/\text{m}\cdot\text{K}$ ): 0.35

Porosity (%): < 2

Operating Temp Max ( $^{\circ}\text{C}$ ): 1000

Flexural Strength (MPa): 45

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

Contact Angle ( $^{\circ}$ ): N/A

Gas Permeability ( $\text{cm}^3/\text{cm}^2\cdot\text{s}$ ): <  $10^{-8}$

Coefficient of Thermal Expansion ( $10^{-6}/\text{K}$ ): 12

Shore Hardness: 80 (Shore D)

Water Uptake (%): < 1

Ash Content (%): 90

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

Compressive Strength (MPa): 80

Electrical Conductivity ( $\text{S}/\text{cm}$ ): <  $10^{-14}$

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

Young's Modulus (GPa): 25

Chemical Stability: Redox Stable

Coating Material: None

Surface Roughness (Ra): 1.5

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