

## Carbon-Black Filled PTFE Gasket

Catlog Number: FCSM-0063

### • Description

Electrically conductive gasket material designed for internal sealing of fuel cell stacks where both gas tightness and grounding are required.

### • Basic Information

Material Composition: PTFE / Carbon Black

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

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

Surface Resistance ( $\text{m}\Omega\cdot\text{cm}^2$ ):  $< 50$

Tensile Strength (MPa): 15

Thermal Conductivity ( $\text{W}/\text{m}\cdot\text{K}$ ): 0.8

Porosity (%):  $< 2$

Operating Temp Max ( $^{\circ}\text{C}$ ): 260

Flexural Strength (MPa): N/A

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

Contact Angle ( $^{\circ}$ ): 115

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

Coefficient of Thermal Expansion ( $10^{-6}/\text{K}$ ): 110

Shore Hardness: 65 (Shore D)

Water Uptake (%):  $< 0.05$

Ash Content (%): 15 (Carbon)

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

Compressive Strength (MPa): 18

Electrical Conductivity (S/cm): 20

Specific Surface Area ( $\text{m}^2/\text{g}$ ): 12

Young's Modulus (GPa): 0.6

Chemical Stability: Acid Stable

Coating Material: None

Surface Roughness (Ra): 1.2

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