

## Polysulfone (PSU) Structural Plate

Catlog Number: FCSM-0053

### • Description

Precision-molded polysulfone plates used for structural insulation and manifold components in low-temperature fuel cell systems.

### • Basic Information

Material Composition: Polysulfone (PSU)

Thickness ( $\mu\text{m}$ ): 5000

Density ( $\text{g}/\text{cm}^3$ ): 1.24

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

Tensile Strength (MPa): 70

Thermal Conductivity ( $\text{W}/\text{m}\cdot\text{K}$ ): 0.26

Operating Temp Max ( $^{\circ}\text{C}$ ): 160

Flexural Strength (MPa): 105

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

Contact Angle ( $^{\circ}$ ): 82

Coefficient of Thermal Expansion ( $10^{-6}/\text{K}$ ): 31

Shore Hardness: 80 (Shore D)

Water Uptake (%): 0.3

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

Compressive Strength (MPa): 95

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

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

Young's Modulus (GPa): 2.5

Chemical Stability: Alkali/Acid Stable

Coating Material: None

Surface Roughness (Ra): 0.8

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