

## Nickel-Plated Copper Bus Bar

Catlog Number: FCSM-0039

### • Description

Heavy-duty current collector bus bar made from high-conductivity copper with a corrosion-resistant nickel plating for high-power industrial fuel cell systems.

### • Basic Information

Material Composition: Copper / Nickel Plate

Thickness ( $\mu\text{m}$ ): 10000

Density ( $\text{g}/\text{cm}^3$ ): 8.9

Surface Resistance ( $\text{m}\Omega\cdot\text{cm}^2$ ):  $< 0.1$

Tensile Strength (MPa): 250

Thermal Conductivity ( $\text{W}/\text{m}\cdot\text{K}$ ): 380

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

Flexural Strength (MPa): N/A

Corrosion Resistance ( $\mu\text{A}/\text{cm}^2$ ):  $< 0.2$

Contact Angle ( $^{\circ}$ ): 80

Coefficient of Thermal Expansion ( $10^{-6}/\text{K}$ ): 16.8

Shore Hardness: 90 (HB)

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

Compressive Strength (MPa): 280

Electrical Conductivity ( $\text{S}/\text{cm}$ ):  $5.5 \times 10^5$

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

Young's Modulus (GPa): 110

Chemical Stability: Good

Coating Material:  $10\mu\text{m}$  Nickel

Surface Roughness (Ra): 0.4

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