

Expanded Metal Mesh GDL Substrate

Catlog Number: FCSM-0020

• Description

A precision-expanded titanium or stainless steel mesh used as a mechanical support for gas diffusion media in high-pressure electrolyzers and fuel cells.

• Basic Information

Material Composition: Titanium / SS316L

Thickness (μm): 250

Density (g/cm^3): 3.5

Surface Resistance ($\text{m}\Omega\cdot\text{cm}^2$): < 8

Tensile Strength (MPa): 280

Thermal Conductivity ($\text{W}/\text{m}\cdot\text{K}$): 16

Porosity (%): 60

Operating Temp Max ($^{\circ}\text{C}$): 500

Flexural Strength (MPa): N/A

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

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

Gas Permeability ($\text{cm}^3/\text{cm}^2\cdot\text{s}$): 150

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

Shore Hardness: N/A

Mean Pore Size (μm): 150

Compressive Strength (MPa): 80

Electrical Conductivity (S/cm): 1.5×10^4


Specific Surface Area (m^2/g): N/A

Young's Modulus (GPa): 110

Chemical Stability: High Oxidation Res

Coating Material: TiN or Pt

Surface Roughness (R_a): 1.2

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