

Nano-Carbon Coated Titanium Plate

Catlog Number: FCSM-0028

• Description

Titanium bipolar plate featuring a proprietary nano-carbon composite coating that eliminates the need for noble metal plating while maintaining low contact resistance.

• Basic Information

Material Composition: Ti Grade 1 / Nano-Carbon

Thickness (μm): 150

Density (g/cm^3): 4.5

Surface Resistance ($\text{m}\Omega\cdot\text{cm}^2$): < 5

Tensile Strength (MPa): 300

Thermal Conductivity ($\text{W}/\text{m}\cdot\text{K}$): 18

Operating Temp Max ($^{\circ}\text{C}$): 200

Flexural Strength (MPa): N/A

Corrosion Resistance ($\mu\text{A}/\text{cm}^2$): < 0.5

Contact Angle ($^{\circ}$): 88

Coefficient of Thermal Expansion ($10^{-6}/\text{K}$): 8.9

Shore Hardness: 130 (HV)

Mean Pore Size (μm): N/A

Compressive Strength (MPa): 350

Electrical Conductivity (S/cm): 500 (Coating)

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

Young's Modulus (GPa): 105

Chemical Stability: Excellent Acid Res

Coating Material: Nano-Carbon

Surface Roughness (Ra): 0.2

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