

Cobalt-Manganese Oxide Coating

Catlog Number: FCSM-0068

• Description

A protective structural coating material applied via atmospheric plasma spray to SOFC interconnects to inhibit chromium evaporation and maintain conductivity.

• Basic Information

Material Composition: Co₃O₄ - Mn₃O₄

Thickness (μm): 25

Density (g/cm³): 5.15

Surface Resistance (mΩ·cm²): < 20 (at 800°C)

Tensile Strength (MPa): N/A

Thermal Conductivity (W/m·K): 2.2

Porosity (%): 5

Operating Temp Max (°C): 950

Flexural Strength (MPa): N/A

Corrosion Resistance (μA/cm²): Excellent

Contact Angle (°): N/A

Gas Permeability (cm³/cm²·s): < 10⁻⁷

Coefficient of Thermal Expansion (10⁻⁶/K): 11.5

Shore Hardness: N/A

Ash Content (%): 100

Mean Pore Size (μm): 0.8

Compressive Strength (MPa): N/A

Electrical Conductivity (S/cm): 55

Specific Surface Area (m²/g): 8

Young's Modulus (GPa): N/A

Chemical Stability: Redox Stable

Coating Material: Spinel Oxide

Surface Roughness (Ra): 2.5

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