Eata Battery

Carbon-Coated SiO2

Catlog Number: BMAM-0026

Description

Silicon dioxide nanoparticles coated with carbon to enable electrochemical activity and high capacity as a cost-effective alternative to Si/C.

Basic Information

Chemical Formula: SiO2@C

Appearance: Dark Grey Powder

D50 Particle Size: 5 - 12 μm

Tap Density: ≥ 0.75 g/cm³

BET Surface Area: 5.0 - 15 m²/g

1st Discharge Capacity: ≥ 400 mAh/g

1st Coulombic Efficiency: ≥ 80%

Carbon Content: 10 - 20 wt%

Active Metal Content: Si: ~35%

Ash Content: ≤ 0.20%

Moisture Content: ≤ 0.15%

pH Value: 6.0 - 8.0

Iron (Fe) Impurity: ≤ 80 ppm

True Density: 2.2 - 2.3 g/cm³

Compaction Density: ≥ 1.4 g/cm³

Crystal Structure: Amorphous

Surface Coating: Carbon

Magnetic Impurities: ≤ 50 ppb

Electronic Conductivity: ~10^{-2} S/cm

Voltage Range: 0.01 - 1.5 V

Purity: ≥ 99.0%

Primary Application: Low-cost high capacity

Thermal Stability: High

Cycle Life: ≥ 600 cycles

⚠ For Research or Industrial Raw Materials, Not For Personal Medical Use!

Eata Battery delivers the world's battery makers a single, reliable source for every high-performance raw material—cathode to collector, catalyst to membrane—so you can design, scale and ship next-generation batteries faster.

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