

## Graphene-Wrapped SiO<sub>2</sub>

Catlog Number: BMAM-0031

### • Description

Silicon dioxide particles encapsulated in graphene layers to improve conductivity and structural stability as a sustainable alternative to Si-C.

### • Basic Information

Chemical Formula: SiO<sub>2</sub>@G

Appearance: Black Powder

D50 Particle Size: 5 - 15 μm

Tap Density: ≥ 0.6 g/cm<sup>3</sup>

BET Surface Area: 15 - 35 m<sup>2</sup>/g

1st Discharge Capacity: ≥ 550 mAh/g

1st Coulombic Efficiency: ≥ 82%

Carbon Content: 10 - 20 wt%

Active Metal Content: Si: ~35%

Ash Content: ≤ 0.20%

Moisture Content: ≤ 0.10%

pH Value: 6.0 - 8.0

Iron (Fe) Impurity: ≤ 40 ppm

True Density: 2.1 - 2.3 g/cm<sup>3</sup>

Compaction Density: ≥ 1.3 g/cm<sup>3</sup>

Crystal Structure: Composite

Surface Coating: Graphene

Magnetic Impurities: ≤ 50 ppb

Electronic Conductivity: ~10<sup>2</sup> S/cm

Voltage Range: 0.01 - 2.0 V

Purity: ≥ 99.0%

Primary Application: Cost-effective Si-anode

Thermal Stability: High

Cycle Life: ≥ 800 cycles

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