Eata Battery

Vanadium Pentoxide (Anode)

Catlog Number: BMAM-0040

Description

Layered vanadium oxide used in aqueous and organic lithium-ion systems, offering high theoretical capacity through multi-electron redox reactions.

Basic Information

Chemical Formula: V2O5

Appearance: Yellow/Orange

D50 Particle Size: 1 - 3 μm

Tap Density: ≥ 0.9 g/cm³

BET Surface Area: 10 - 25 m²/g

1st Discharge Capacity: ≥ 250 mAh/g

1st Coulombic Efficiency: ≥ 88%

Carbon Content: N/A

Active Metal Content: V: ~56%

Ash Content: ≤ 0.10%

Moisture Content: ≤ 0.15%

pH Value: 4.0 - 6.0

Iron (Fe) Impurity: ≤ 50 ppm

True Density: 3.3 - 3.4 g/cm³

Compaction Density: ≥ 2.0 g/cm³

Crystal Structure: Orthorhombic

Surface Coating: None

Magnetic Impurities: ≤ 60 ppb

Electronic Conductivity: ~10^{-4} S/cm

Voltage Range: 0.01 - 3.0 V

Purity: ≥ 99.5%

Primary Application: Aqueous battery

Thermal Stability: High

Cycle Life: ≥ 500 cycles

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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