

Titanium Oxynitride (TiON)

Catlog Number: BMAM-0056

• Description

Titanium oxynitride combining the stability of oxides with the high conductivity of nitrides, tailored for high-power anodes with stable ion kinetics.

• Basic Information

Chemical Formula: TiON

Appearance: Dark Blue Powder

D50 Particle Size: 2 - 6 μm

Tap Density: $\geq 1.2 \text{ g/cm}^3$

BET Surface Area: 10 - 20 m^2/g

1st Discharge Capacity: $\geq 210 \text{ mAh/g}$

1st Coulombic Efficiency: $\geq 86\%$

Carbon Content: N/A

Active Metal Content: Ti: $\sim 60\%$

Ash Content: $\leq 0.20\%$

Moisture Content: $\leq 0.10\%$

pH Value: 7.0 - 9.0

Iron (Fe) Impurity: $\leq 50 \text{ ppm}$

True Density: 4.0 - 4.2 g/cm^3

Compaction Density: $\geq 2.2 \text{ g/cm}^3$

Crystal Structure: Cubic

Surface Coating: Nitrogen

Magnetic Impurities: $\leq 50 \text{ ppb}$

Electronic Conductivity: $\sim 10^3 \text{ S/cm}$

Voltage Range: 0.01 - 2.5 V

Purity: $\geq 99.0\%$

Primary Application: High-rate power

Thermal Stability: High

Cycle Life: $\geq 1000 \text{ cycles}$

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