

Niobium Phosphate (NbPO₅)

Catlog Number: BMAM-0055

• Description

Polyanionic niobium phosphate providing safe voltage plateaus and high structural rigidity for safe, high-rate lithium-ion battery anodes.

• Basic Information

Chemical Formula: NbPO₅

Appearance: White Powder

D50 Particle Size: 1 - 5 μm

Tap Density: $\geq 1.0 \text{ g/cm}^3$

BET Surface Area: 5.0 - 12 m^2/g

1st Discharge Capacity: $\geq 160 \text{ mAh/g}$

1st Coulombic Efficiency: $\geq 92\%$

Carbon Content: N/A

Active Metal Content: Nb: $\sim 35\%$

Ash Content: $\leq 0.10\%$

Moisture Content: $\leq 0.05\%$

pH Value: 6.0 - 8.0

Iron (Fe) Impurity: $\leq 30 \text{ ppm}$

True Density: 3.5 - 3.7 g/cm^3

Compaction Density: $\geq 2.1 \text{ g/cm}^3$

Crystal Structure: Tetragonal

Surface Coating: None

Magnetic Impurities: $\leq 30 \text{ ppb}$

Electronic Conductivity: $\sim 10^{-7} \text{ S/cm}$

Voltage Range: 1.0 - 2.5 V

Purity: $\geq 99.5\%$

Primary Application: Safe fast-charge LIB

Thermal Stability: Very High

Cycle Life: $\geq 3000 \text{ cycles}$

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