

NANOMYTE® BE-56E (NMC811)

Active Material Characteristics

Product IDs:	BE-56E (single-sided) BE-56E-DS (double-sided)
Product Description:	Lithium Nickel Manganese Cobalt Oxide (NMC811) electrode sheets
Chemical Formula:	$\text{LiNi}_{0.8}\text{Mn}_{0.1}\text{Co}_{0.1}\text{O}_2$
Morphology:	Polycrystalline
Specific Surface Area:	0.75 m ² /g
Tap Density:	2.5 g/cc
Average Particle Size (D₅₀):	8 μm

Standard Electrode Characteristics

Current Collector:	Aluminum (16 μm thick)
Sheet Dimensions:	5 in x 10 in (127 mm x 254 mm); coated edge-to-edge
Calendared:	Yes
Electrode Coating:	Single or Double-sided sheets (as specified)
Coating Thickness:	60 μm ± 5% (excluding current collector)
Areal Capacity:	2.0 mAh/cm ² ± 5% (per side)
Active Material Loading:	10.0 mg/cm ² ± 5% (per side)

Tape Composition:	Wt%	Material	Description
	90%	Lithium Nickel Manganese Cobalt Oxide ["NMC811"]	(active material)
	5%	Poly(vinylidene fluoride) ["PVDF"]	(binder)
	5%	Carbon Black ["Super P"]	(conductive carbon)

*Specifications can be modified upon request to accommodate different active material loadings, coating thickness, & capacity

Electrochemical Characteristics

Typical First Charge Capacity:	210 mAh/g	Minimum First Discharge Capacity:	≥ 180 mAh/g (@ 0.1C)
Typical First Discharge Capacity:	200 mAh/g	Voltage Range:	4.3 – 2.7V

Available Quantities

Electrode sheets are available in packs of 2, 5, 10, 25, 50, & 100 sheets. Bulk quantities & rolls available upon request.

Precautions for Safe Handling & Storage

Handling: Appropriate personal protective equipment should be used at all times. Avoid contact with eyes and skin. Handle in a dry and well-ventilated area. Avoid actions that abrade, sand, or grind the coated surface. Such actions can release respirable dust containing Nickel and Cobalt. Personnel with known allergies to Nickel or Cobalt should exercise extreme caution.

Storage: Store sheets flat and in a cool, dry place, away from heat and moisture.

Note: In its manufactured and shipped form, this article does not pose a physical hazard or health risk to humans or the environment. However, processing that generates dust or exposure to extreme temperatures may release hazardous particles.

Refer to SDS for complete safety information of this material.

This product should not be used in any commercial battery.

DISCLAIMER: NEI Corporation believes this information accurately describes the product's typical characteristics. NEI disclaims liability for any incidental or consequential damages resulting from use beyond its control. This data is a supplement to the user's own investigations; it is the user's responsibility to independently determine the product's suitability, performance, and safety for their specific application. Nothing herein constitutes a recommendation to infringe upon any patent or intellectual property right.