

NANOMYTE® BE-58E (NMC85:05:10)

Active Material Characteristics

Product IDs:	BE-58E (single-sided) BE-58E-DS (double-sided)
Product Description:	Lithium Nickel Manganese Cobalt Oxide (NMC85:5:10) electrode sheets
Formula:	$\text{LiNi}_{0.85}\text{Mn}_{0.05}\text{Co}_{0.10}\text{O}_2$
Morphology:	Polycrystalline
Average Particle Size (D₅₀):	~10 μm
Specific Surface Area:	~0.54 m ² /g

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:	9.52 mg/cm ² ± 5% (per side)

Tape Composition:	%	Material	Description
	90%	Lithium Nickel Manganese Cobalt Oxide ["NMC85:05:10"]	(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:	220 mAh/g	Nominal voltage vs. Li/Li⁺:	3.75V
Typical First Discharge Capacity:	210 mAh/g	Voltage Range:	4.3 – 2.7V
Minimum First Discharge Capacity:	≥ 190 mAh/g (@ 0.1C)		

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 Storage & Handling

Personal protective equipment should be used at all times. Avoid contact with eyes and skin. Ensure adequate ventilation and avoid inhalation of dusts. Wash hands thoroughly after handling. Store in a dry and sealed pouch or under inert atmosphere. Avoid heat and moisture. [Refer to SDS for complete safety information of this material.](#)

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