# NTeC<sup>™</sup>-B Advanced carbon black/CNT hybrid for energy storage applications

Birla Carbon introduces an ultra-conductive carbon nanotube/carbon black hybrid material that pushes the boundaries of electrical conductivity. This hybrid material has the high purity that is needed for energy storage applications. A pre-dispersion of the CNT/carbon black hybrid reduces mixing time and ensures safe material handling. The exceptional behavior at high voltage during lithium-ion battery cycling provides performance benefits for batteries that demand both a high energy density and high power density.

### **TARGET APPLICATIONS**

- High Performance EV
- Portable electronics
- Power tools
- Aerospace

#### **PRODUCT ATTRIBUTES**

- Hybrid carbon black/CNT morphology
- High purity
- Pre-dispersion available

## **PERFORMANCE ADVANTAGES**

- Superior voltage retention under load
- Excellent long-term cycling and rate capabilities
- Higher active solids content

3.4

3.2

0

4 3.8

3.6 3.4 3.2

3.2 3 2.8 C/3 Ch/DCh @ 4.2-3V

250

120

240

Exceptional performance

at high votlage

500

Cycle

750

Discharge Capacity (mAh)

360

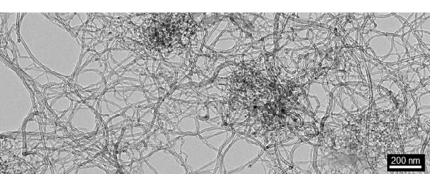
1000

Discharge Capacity

(mAh/cm<sup>2</sup>) 3 2.8 2.6 2.4

### **TYPICAL PROPERTIES**

PROPERTY	UNIT	NTeC-B	
Nitrogen Surface Area	m²/g	200	
Ash Content	wt%	< 0.5	
Moisture	wt%	< 1.0	



The Birla Carbon team will collaborate with you to find the best possible solution for your carbon black needs. Please contact us at EnergySystems@adityabirla.com to request additional information.

#### **ABOUT BIRLA CARBON**

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Birla Carbon is a leading global supplier of carbon black. As one of the flagship businesses of the Indian multinational conglomerate, the Aditya Birla Group, Birla Carbon provides innovative sustainable carbor black solutions that enhance the performance of paints and coatings, inks and toners, energy systems, plastics, adhesives, sealants, textile fibers, mechanical rubber goods, and tires.

The company's footprint extends across 12 countries with 16 manufacturing facilities and two state-of-the-art technology centers in Marietta (USA) and Taloja (India), providing industry-leading innovation. Its Sustainable Operational Excellence (SOE) strategy focuses on employee safety, environmental stewardship, efficient use of carbon sources, and operating in a socially and ethically responsible manner In 2020, Birla Carbon was awarded a Gold level rating for sustainable practices for the fifth consecutive year by EcoVadis

Birla Carbon's Purpose, Share the Strength, is about balanced and shared leadership, working at the product level to innovate cutting edge solutions, through collaboration with its people, customers and communities and backed by knowledge built over a century.

For more information, visit **birlacarbon.com**, or follow us @BirlaCarbon on Twitter, LinkedIn, Facebook, or Instagram.

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Industry Reference

480

Industry Reference

1250

600

1500