## **CONDUCTEX™** i14

# Advanced conductive carbon black for energy storage applications

Birla Carbon introduces a new ultra-high structure carbon black specifically designed for applications that demand a high electrical conductivity, like lithium-ion batteries. Our engineered Conductex i14 carbon additive creates extensive electrically conductive pathways. The ultra-high structure carbon black also allows for formulations to be made with higher solids loadings, allowing for significant increases in product throughput.



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#### **TARGET APPLICATIONS**

- Automotive EV
- Portable electronics
- Power tools
- · Stationary storage

#### **PRODUCT ATTRIBUTES**

- · High structure/branching
- High purity
- Excellent dispersibility

#### **PERFORMANCE ADVANTAGES**

- · Superior cycling efficiency
- Excellent long-term cycling and rate capabilities
- · Higher active solids content

#### **TYPICAL PROPERTIES**

PROPERTY	UNIT	CONDUCTEX i14
Nitrogen Surface Area	m²/g	55-65
Oil Absorption Number	cm³/100g	230-260
Ash Content	wt%	< 0.05
Moisture	wt%	< 1.0

#### HIGHER SOLIDS LOADINGS AND EXCELLENT CYCLE LIFE

Birla Carbon's new ultra-high structure carbon black enables an 8% higher solids content in lithium-ion battery formulations, which enables a higher battery throughput that lowers manufacturing costs. This material then delivers exceptional cycle life performance, over 1000 cycles, for both high-energy and high-power applications. Together, the increased manufacturing efficiency and long cycle life greatly improve the sustainability of lithium-ion batteries.



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

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-ofthe-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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