Performance Enhanced Carbon Nanotube, 10wt% Boron
PRODUCT DATA SHEET

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Description

Multi-walled carbon nanotubes (MWCNTs) are materials made of multiple layers of carbon nanotubes stacked on top of each other, each layer can be viewed as a single-walled carbon nanotube. This unique structure gives multi-walled carbon nanotubes a range of excellent physical and chemical properties, including high strength, high toughness, good electrical conductivity and chemical stability. MWCNTs are widely used in many fields. In industries such as coatings, rubber, plastics, inks and batteries, multi-walled carbon nanotubes are often used as reinforcement materials due to their excellent mechanical properties and chemical stability. In addition, it is used in electrochemical sensors and fuel cells as a substrate or functionalized material to improve the performance and efficiency of devices. Although multi-walled carbon nanotubes have many advantages, there are also some challenges, such as easy aggregation and difficulty in dispersing. These problems need to be overcome with proper surface treatment and composite material design. In short, multi-walled carbon nanotubes are a kind of nanomaterial with wide application prospect, and their unique structure and properties make them of great value in the field of high-tech. Future studies will further explore its application potential in various fields and address existing technical challenges.

Abvigen offers high quality performance enhanced carbon nanotube, 10wt% Boron. The product is composed of highly electric conductive graphene and boron Nanoparticles / nanopowder. The boron nanopowder / nanoparticles can not only prevent dispersed graphene from reagglomerating, but also exhibit synergetic effect with graphene. By mixing the two conductive products, it can effectively improve the electrical conductivity, thermal conductivity and mechanical properties; effectively enhance tensile strength, hardness and elastic modulus characteristics, and provide higher electrode conductivity and stronger electrode mechanical strength and adhesive attraction. The product has high repeatability between batches, which can meet the needs of various customers for personalized materials such as research and development, testing and production.

For custom sizes, formulations or bulk quantities please contact our customer service department.

Website: www.abvigen.com Phone: +1 929-202-3014 Email: info@abvigenus.com

Characteristics

Type: Performance Enhanced Carbon Nanotube, 10wt% Boron

Size: 50 g

Carbon Nanotubes Nanopowder Parameters:

Carbon Nanotubes has a two-dimensional structure of a carbonaceous new material. Graphene has excellent electrical, thermal and mechanical properties.

Carbon Nanotubes Purity: >99wt%

Carbon NanotubesThickness: <5 nm

Carbon Nanotubes Diameter: 1 μm - 12 μm

Carbon Nanotubes Specific Surface Area: 500 - 1200 m^2/g

Carbon NanotubesColor: Black

Conductivity: 1000-1500 S/M

The Product COA: C=99.6%, O<0.4%

Boron (B) Nanopowder Parameters:

Boron Nanopowder / Nanoparticles (B, metal basis)

Boron Nanopowder / Nanoparticles Bulk Density: 0.35 g/cm^3

Boron Nanopowder / Nanoparticles Purity: 99.9%

Boron Nanopowder / Nanoparticles APS: 100 nm

Boronm Nanopowder / Nanoparticles SSA: 28-45 m^2/g

Boron Nanopowder / Nanoparticles Color: Dark Brown

Advantages

Effectively improve the electrical conductivity and mechanical properties;

Effectively enhance tensile strength, hardness and elastic modulus characteristics.

Applications

Screen displays, electric motors, sensing devices, aerospace and automotive devices, body armor and tear-resistant cloth fibers and textiles products, sports equipments. Serve as a conductive metallic or semiconductor, conductive films in coatings, plastics, certain bioscience applications, solar and electronic applications, additives in polymers, catalysts, electron field emitters for cathode ray lighting

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elements, flat panel display, gas-discharge tubes in telecom networks, electromagnetic-wave absorption and shielding, energy conversion; lithium-battery anodes, hydrogen storage, nanotube composites (by filling or coating), nanoprobes for STM, AFM, and EFM tips, nanolithography; nanoelectrodes, drug delivery, sensors, reinforcements in composites, supercapacitor.

Ordering Information

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