



Carbon Black & Graphene & Carbon Nanotubes Mixed, Water Dispersion PRODUCT DATA SHEET

Carbon Black & Graphene & Carbon Nanotubes Mixed, Water Dispersion

Description

Graphene has a two-dimensional structure of a carbonaceous new material, which has excellent electrical, thermal and mechanical properties. Our graphene with a very large surface area 500 ~ 1200 m²/g; It is very difficult to be dispersed in a polar or non-polar solvents. Based on our lab experimental results from numerous dispersants screened out, we added one best suitable special dispersant and used a high capacity ultrasonic equipment to disperse our graphene product. After testing, the liquid is a very uniform and very stable graphene water dispersion product. Carbon Black & Graphene & Carbon Nanotubes Mixed, Water Dispersion is composed of high electric conductive CNTs and graphene and highly conductive carbon black nanopowder. The carbon black nanoparticles can not only prevent dispersed CNTs and graphene from reagglomerating, but also exhibit synergetic effect with CNTs and graphene. The product can effectively improve the electrical conductivity, thermal conductivity and mechanical properties, enhance tensile strength, hardness and elastic modulus characteristics. Also, Higher electrode conductivity and stronger electrode mechanical strength and adhesive attraction.

Abvigen offers high quality carbon black & graphene & carbon nanotubes mixed, water dispersion. 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: Carbon Black & Graphene & Carbon Nanotubes Mixed, Water Dispersion

Size: 120 mL

Concentration: 20wt%



Graphene Nanopowder Parameters:

Graphene purity: >99wt%

Graphene thickness: <5 nm

Graphene diameter: 1 μm - 12 μm

Graphene specific surface area: 500 - 1200 m^2/g

Graphene color: Black

Conductivity: 1000-1500 S/M

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

Carbon Nanotube Parameters:

Multi Walled Carbon Nanotubes (MWNTs, MWCNTs)

Purity: > 97% (carbon nanotubes)

Average outside diameter: >55 nm

Average inside diameter: 8 nm

Length: 10-30 μm (TEM)

SSA: > 60 m^2/g (BET)

Color: Black

Ash: <1.5 wt%

Electrical conductivity: >100 s/cm

Tap density: 0.12 g/cm^3

True density: ~2.1 g/cm^3

Carbon Black Nanopowder Parameters:

Carbon black nanopowder morphology: Near spherical

Carbon black nanopowder purity: >99%

Carbon black nanopowder color: Black

Carbon black nanopowder APS: 120 nm

Carbon black nanopowder volume resistivity: $2\sim 5 \times 10^{-4} \Omega\cdot\text{cm}$

Carbon black nanopowder true density: 0.38 g/ml

Advantages

Effectively improve the electrical conductivity, thermal conductivity and mechanical properties



Effectively enhance tensile strength, hardness and elastic modulus characteristics.

Higher electrode conductivity and stronger electrode mechanical strength and adhesive attraction

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 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), nanoprobe for STM, AFM, and EFM tips, nanolithography; nanoelectrodes, drug delivery, sensors, reinforcements in composites, supercapacitor.

Ordering Information

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Email: info@abvigenus.com