



Silicon Graphene Carbon Nanotubes, Dry Powder PRODUCT DATA SHEET

Silicon Graphene Carbon Nanotubes, Dry Powder

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 $500 \sim 1200 \text{ m}^2/\text{g}$. Silicon Graphene Carbon Nanotubes Mixed, Water Dispersion can effectively improve the electrical conductivity and mechanical properties, and enhance tensile strength, hardness and elastic modulus characteristics.

Abvigen offers high quality silicon graphene carbon nanotubes, dry powder. 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: Silicon Graphene Carbon Nanotubes, Dry Powder

Size: 30 mL

30wt% Silicon (Si) Nanopowder Parameters:

Silicon Nanopowder / Nanoparticles (Si, metal basis)

Silicon nanopowder / nanoparticles true density: 2.33 g/cm^3

Silicon nanopowder / nanoparticles purity: 98.5%

Silicon nanopowder / nanoparticles APS: 50 nm

Silicon nanopowder / nanoparticles SSA: $80 \text{ m}^2/\text{g}$

Silicon nanopowder / nanoparticles color: Yellow

Silicon nanopowder / nanoparticles morphology: Near spherical

30wt% 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%

40wt% Carbon Nanotubes 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

Ratio: CNTs : Si : Graphene = 4:3:3

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 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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