



Graphene Silicon Nanoparticles, Dry Powder PRODUCT DATA SHEET

Graphene Silicon Nanoparticles, 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 $500 \sim 1200 \text{ m}^2/\text{g}$. Graphene Silicon Nanoparticles, Dry Powder is composed of highly electric conductive graphene and silicon Nanoparticles / nanopowder. The silicon 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.

Abvigen offers high quality graphene silicon nanoparticles, 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: Graphene Silicon Nanoparticles, Dry Powder

Size: 50 g

Graphene Nanopowder Parameters:

Graphene purity: >99wt%

Graphene thickness: <5 nm

Graphene diameter: $1 \mu\text{m} - 12 \mu\text{m}$

Graphene specific surface area: $500 - 1200 \text{ m}^2/\text{g}$

Graphene color: Black

Conductivity: 1000-1500 S/M



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

Silicon (Si) Nanopowder Parameters:

Silicon Nanopowder / Nanoparticles (Si, metal basis)

Silicon nanopowder / nanoparticles true density: 2.33 g/cm³

Silicon nanopowder / nanoparticles purity: 98.5%

Silicon nanopowder / nanoparticles APS: 50 nm

Silicon nanopowder / nanoparticles SSA: 80 m²/g

Silicon nanopowder / nanoparticles color: Yellow

Silicon nanopowder / nanoparticles morphology: Near spherical

Advantages

Excellent electrical, thermal and mechanical properties

Uniform

Stable

Effectively enhance tensile strength, hardness and elastic modulus characteristics

Provide 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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