



Carbon Nanotube-TiO₂, 80%
PRODUCT DATA SHEET

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Description

Carbon nanotubes are simple substances composed of carbon atoms and can be regarded as hollow tubular structures formed by the curling of graphene. On the surface of carbon nanotubes, the carbon atoms are bonded to each other in the form of sp^2 hybrid orbitals, which are arranged as hexagonal graphite layers. In theory, this regular hexagonal structure is perfectly evenly distributed over the entire surface of the carbon nanotubes. Topologically, the common structure and properties of graphene and carbon nanotubes are one of the important factors for their similarity. TiO₂ rutile crystal between adjacent Octahedrons, oxygen from oxygen a key Connected to the horizontal edge direction exists the larger density of oxygen with negative electrical. By electrostatic interactions, TiO₂ rutile and CNTs through Electrostatic adsorption self-assembly form a uniform and stable complex. Titanium dioxide particles effectively isolate the agglomerates of CNTs and form stable CNTs/TiO₂ composite. Titanium dioxide has a large surface area with electronegativity, therefore the nanopowder TiO₂ rutile can adsorb more of CNTs.

Abvigen offers high quality carbon nanotube-TiO₂, 80%. 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 Nanotube-TiO₂, 80%

Size: 5 g

CNTs (Outside diameter: > 50 nm, Inside diameter: 5-15 nm, length: 5-20 μ m)--treated by Cationic surfactant (Cetyl trimethyl ammonium bromide)

TiO₂ (Rutile, 100 nm~300 nm, spherical)



CNTs 20wt%

TiO₂-rutile 80wt%

SSA: 18.5 m²/g

Volume resistivity: < 2 Ω·CM

Advantages

Very easy to be dispersed

Strong wear resistant property

Non-heavy metal pollution

Good static conductive property

Excellent mechanical property

Super corrosion resistance property

Applications

Particularly suitable for the preparation of tank interior coatings--can be broadly used in petrochemical industry, coal industry and various coatings fields.

Suggestion Dosage 5%.

Ordering Information

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