



## Carbon Nanotube-Mica PRODUCT DATA SHEET

### Carbon Nanotube-Mica

#### 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. Mica is a layered structure of potassium aluminum silicate, between the layer and the layer together through the potassium ionic bond. Silicon atoms are often replaced by Aluminum ion, therefore, the surface of Mica is usually negatively charged. By electrostatic interactions, mica and CNTs through electrostatic adsorption self-assembly form a uniform and stable complex.

Abvigen offers high quality carbon nanotube-mica. 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](http://www.abvigen.com) **Phone:** +1 929-202-3014 **Email:** [info@abvigenus.com](mailto:info@abvigenus.com)

#### Characteristics

**Type:** Carbon Nanotube-Mica

**Size:** 5 g

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

**Mica** (Flaky, 5  $\mu$ m)

**CNTs 10wt%**



**Mica 90wt%**

**SSA:** 9.6 m<sup>2</sup>/g

**Volume resistivity:** <5 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 10%**

### **Ordering Information**

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