



## Stearic Acid-Coated Carbon NanoFibers, 200-600 nm PRODUCT DATA SHEET

### Stearic Acid-Coated Carbon NanoFibers, 200-600 nm

#### Description

Carbon nanofibers refer to nanoscale carbon fibers, which can be divided into carbon nanotubes according to their structural characteristics, namely hollow carbon nanofibers and solid carbon nanofibers. The diameter is usually 10 nm-500 nm, and the length distribution is 0.5  $\mu\text{m}$ -100  $\mu\text{m}$ . Carbon nanofibers are quasi-one-dimensional carbon materials between carbon nanotubes and ordinary carbon fibers, which have high crystal orientation and good electrical conductivity. In terms of thermal conductivity, carbon nanofibers in addition to chemical vapor deposition of ordinary carbon fiber low density, high specific modulus, high specific strength, high conductivity, thermal stability and other characteristics, but also has a small number of defects, aspect ratio is large, it has the advantages of large specific surface area, compact structure.

Abvigen offers high quality stearic acid-coated carbon nanofibers, 200-600 nm. 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:** Stearic Acid-Coated Carbon NanoFibers, 200-600 nm

**Size:** 5 g

**Purity:** > 95 wt% carbon nano fibers (from TGA & TEM)

**Outside diameter:** 200-600 nm

**Length:** 20-50  $\mu\text{m}$  (TEM)

**SSA:** > 18  $\text{m}^2/\text{g}$  (BET)

**Ash:** < 5 wt% (TGA)

**Color:** Black

**Electrical conductivity:** >100 s/cm

**Tap density:** 0.043  $\text{g}/\text{cm}^3$



**True density:** 2.1 g/cm<sup>3</sup>

**Manufacturing method:** CVD

### **Advantages**

High crystal orientation

Good electrical conductivity

Large specific surface area

Compact structure

### **Applications**

(1) additives in polymers; (2) catalysts; (3) electron field emitters for cathode ray lighting elements; (4) flat panel display; (5) gas-discharge tubes in telecom networks; (6) electromagnetic-wave absorption and shielding; (7) energy conversion; (8) lithium-battery anodes; (9) hydrogen storage; (10) nanotube composites (by filling or coating); (11) nanoprobe for STM, AFM, and EFM tips; (12) nanolithography; (13) nanoelectrodes; (14) drug delivery; (15) sensors; (16) reinforcements in composites; (17) supercapacitor.

### **Ordering Information**

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