



## Silicon Oil-Coated Graphitized Carbon NanoFibers, 200-600 nm PRODUCT DATA SHEET

### Silicon Oil-Coated Graphitized Carbon NanoFibers, 200-600 nm

#### Description

Graphene has a two-dimensional structure of a carbonaceous new material, which has excellent electrical, thermal and mechanical properties. Graphitized high purity carbon nanoFibers were produced by a low temperature CVD method and subsequently annealed about 20 h under condition of inert gas at temperature 2800°C. These products were characterized for chemical purity, and defect healing. The graphitization procedure was found to remove residual metal catalyst in the nanofibers and reduce the defects. The graphitized carbon nanofibers have the highest graphite crystallization, the high electrical conductivity, thermal conductivity and the excellent inoxidizability. The electrical conductivity of the graphitized carbon nanofibers is very close to that of graphite powder. And its ignition temperature can reach 800°C.

Abvigen offers high quality silicon oil-coated graphitized 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:** Silicon Oil-Coated Graphitized Carbon NanoFibers, 200-600 nm

**Size:** 1 g

**Purity:** > 99.9 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:** < 0.1 wt% (TGA)

**Color:** Black



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

**Tap Density:** 0.043 g/cm<sup>3</sup>

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

**Manufacturing Method:** CVD, processed at 2800°C

### **Advantages**

Excellent electrical, thermal and mechanical properties

High chemical purity

Defect healing

Highest graphite crystallization

High electrical conductivity, thermal conductivity

Excellent inoxidizability

### **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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