



## **Carbon Black & Graphene Mixed, Water Dispersion**

### **PRODUCT DATA SHEET**

## **Carbon Black & Graphene Mixed, Water Dispersion**

### **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  $500 \sim 1200 \text{ m}^2/\text{g}$ ; It is very difficult to be dispersed in a polar or non-polar solvents. Based on our lab experimental results from numerous dispersants screened out, we added one best suitable special dispersant and used a high capacity ultrasonic equipment to disperse our graphene product. After testing, the liquid is a very uniform and very stable graphene water dispersion product. Carbon Black & Graphene Mixed, Water Dispersion is composed of highly electric conductive graphene and highly conductive carbon black nanopowder. The carbon black 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 carbon black & graphene mixed, water dispersion. 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 Black & Graphene Mixed, Water Dispersion

**Size:** 120 mL

**Concentration:** 20wt%

### **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%

#### **Carbon Black Nanopowder Parameters:**

**Carbon black nanopowder morphology:** Near spherical

**Carbon black nanopowder purity:** >99%

**Carbon black nanopowder color:** Black

**Carbon black nanopowder APS:** 120 nm

**Volume resistivity:**  $2 \sim 5 \times 10^{-4} \Omega \cdot \text{cm}$

**Carbon black nanopowder true density:** 0.38 g/ml

#### **Advantages**

Effectively improve the electrical conductivity, thermal conductivity and mechanical properties

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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