

# WE HAVE BEEN WORKING ON GRAPHENE

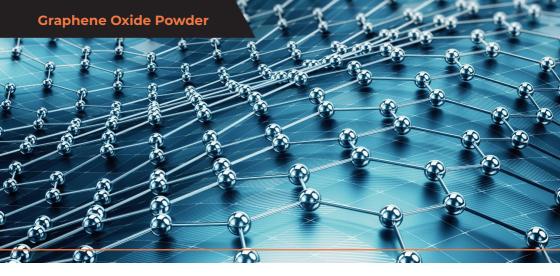
AEROFEN is an innovative company which produces graphene and develops its applications.

We have a globally-unique method of producing large-size graphene derivatives, and knowledge and experience in graphene materials and their processing. We produce both large-size graphene derrivatives and we work on its application in different industry fields.

www.aerofen.com

## What is **Graphene Oxide?**

Graphene oxide (GO) is obtained by manipulatinging graphite with oxidisers, and results in a compound of carbon, oxygen, and hydrogen in variable ratios. The structure and properties of Graphene Oxide (GO) are dependent nthe particular synthesis method and degree of oxidation but it still preserves the layer structure of the parent graphite. GO has a notable advantage by comparison with other 2D materials (such as graphene) due to be easily dispersed within solution; allowing for processing at high concentrations. This has opened it up for use in applications such as optical coatings, transparent conductors, thin-film batteries, chemical resistant coatings, water purification, and many more.



#### What Aerofen® Graphene Oxide Product Offers?

We supply Graphene Oxide to fulfill our customers' needs. Our graphene oxide is noted for its mechanical, thermal and many other properties. Aerofen offers a wide choice of graphene oxide with various parameters and in various form you need. Feel free to contact us to get started.

#### **Features and Benefits**

- Ultra-thin and flexible nanostructure, in the form of uniform sheets.
- O Few structural defects, excellent electrical and thermal conductor, as well as excellent mechanical properties.
- Ease of dispersion and high stability
- Good solution processability
- Low production cost
- Presence of rich active oxygen-containing functional groups
- It can be easily functionalized
- Large surface area, high chemical stability, good charge carrier properties.

### Aerofen® Graphene Oxide Powder is the ideal material for;

- Multifunctional materials
- Graphene research
- Solar energy
- Biomaterials
- Composites with a barrier effect,
- Nanocomposites,
- Thermal applications,
- Capacitors,
- Conductive coatings and materials and more.







#### **Graphene Oxide Powder**

#### **PROPERTIES**

Form: Powder

Number of Graphene Layers: 2-5 Layer

Color: Brown

Average Particle Size: 500 nm

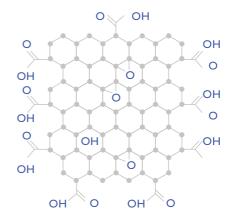
**Odor:** Odorless

Dispersibility: Water-dispersible

(polar solvents)

#### **ELEMENTAL ANALYSIS**

Carbon: 55-70% Oxygen: 30 – 40% Nitrogen: <5 Sulfur: <2 Purity: N/A



#### QUALITY CONTROL

Our Graphene Oxide Powder is subjected to a rigorous QC in order to ensure a high quality and reproducibility.

If your application requires more specific and special quality control, please do not hesitate to contact us.

#### **PACKAGING**

Available is various sizes and units to accommodate customer's needs

#### STORAGE

Prevent the accumulation of dust. Keep away from sources of ignition, heat and flames. Do not smoke in the handling area. It must be handled in a place with an extraction system. Avoid contact with strong oxidising agents. Make sure that the packaging is not damaged or broken. Perform loading and unloading of the product with care to avoid impacts and breakage. Store in sealed containers in a cool, dry, well-ventilated place and away from heat sources.

#### **HEALTH AND SAFETY**

Wear gloves and protective clothing. Avoid inhalation, contact with eyes, skin and clothing.

