

# GRAPHENE OXIDE

## Product Specifications

**Product:** Graphene Oxide (edge-oxidized)

**Description:** This material is the as-synthesized product requiring no additional purification. The product is black in color and odorless. Successful incorporation of graphene oxide into specific solvents or hosts is dependent on the oxidation state and this sample prefers polar or hydrophilic hosts. Sonication is recommended for aiding dispersion in solvents. Additional information regarding the incorporation into a variety of hosts can be provided by Garmor.

**State:** Solid powder (black)

**Particle Size:** The particle size can be tailored based on the starting material and processing conditions. For standard conditions, particle size analysis shows a Gaussian-like distribution of particle sizes as determined by dynamic light scattering with a nominal particle size diameter of 500nm with 90% of the particle sizes below 800nm in diameter.

**Layers:** ~10 layers thick (90% of material)

**Composition:** Oxygen: 5-10% (dehydrated sample)

Non-oxygen composition:

Carbon:	>99.8%
Silicon:	< 40 ppm
Phosphorous:	< 200 ppm
Sulphur	< 60 ppm
Potassium:	< 5 ppm
Calcium	< 30 ppm
Chromium	< 125 ppm
Manganese:	< 10 ppm
Iron	< 900 ppm
Nickel	< 20 ppm
Copper	< 5 ppm
Zinc:	< 2 ppm

