

# Graphenoil

## Graphene Nanoplatelets

**Description:** Single layer and multi-layer graphene made from renewable carbon negative processes that are a combination of patented and proprietary processing.

Under Raman spectroscopy instrumentation, these materials will test equivalent to, or as an enhanced version of any graphite-based graphene material. High resolution microscopic evaluations reveal single-atom-thick hexagonal- or honeycomb-arranged cubical atoms.

The slight difference from a true platelet orientation offers the end use client unique formulation options. It is also pliable, strong, light weight, and conductive of both heat and electricity.

This material offers equivalent or better options in formulation to graphene and is often referred to as “synthetic” graphene. The enhanced properties are achieved through a patented bio-mass conversion and manufacturing process. The patented process allows for extreme purity, carbon negative materials, high quality, and consistency.

Client benchmark and test evaluations in coatings, CFRP, and many additional end use applications have displayed exceptional performance.

**Typical Uses:** Reinforce plastics, cement, asphalts, etc

### Physical Properties:

<b>Chemistry</b>	92% Carbon 7% Oxygen
<b>Form</b>	Light Powder
<b>Color</b>	Dark Grey to Black
<b>Odor</b>	Slight Smoky Smell
<b>Carbon Content</b>	92 wt%

<b>Moisture Content</b>	1 wt%
<b>Oxygen Content</b>	7%
<b>Ash Content</b>	<1.2 wt%
<b>Capacitance</b>	200 Farads/g
<b>Thermal Conductivity</b>	2200 W/m/K
<b>Particle Size</b>	11 $\mu$ m
<b>Optimum Particle Layer Count</b>	1 to 20
<b>Vol % Optimum Layer Count</b>	74%
<b>Average Particle Thickness</b>	3 to 4 nm (DLS/PSA)
<b>Average Particle Layer Count</b>	20
<b>Dry Powder Density</b>	410 kg/m <sup>3</sup>
<b>True Density</b>	2.1 g/cm <sup>3</sup>
<b>Specific Surface Area</b>	576 m <sup>2</sup> /g

**Notes:** The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof.

In light of the foregoing, Graphenoil specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Graphenoil products. Graphenoil specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.

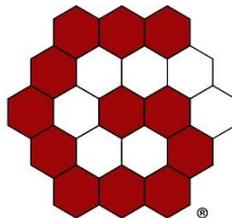
The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Graphenoil patents that may cover such processes or compositions. We recommend

Last Update: 1/26/2021

that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

---

**Trademark Usage:** Except as otherwise noted, all trademarks in this document are trademarks of Graphenoil in the USA and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office. Any and all Graphenoil marks may not be used without prior consent.



**Graphenoil**

16310 Hollister St., Houston, TX 77066  
832-666-3143 | [info@graphenoil.com](mailto:info@graphenoil.com)  
[www.graphenoil.com](http://www.graphenoil.com)