

# 润滑型石墨烯

## 产品说明



专注研发，只为更高品质

### 一、产品概述

1. 昂星新碳开发的润滑型石墨烯（Lubricant Type Graphene, 简称LTG）片径尺寸小、层数少，具有优良的润滑性能。

2. 本系列产品在润滑油脂和有机相（如NMP、DMF、乙二醇、松油醇、乙醇、乙二醇单丁醚醋酸酯等）中具有较好的润湿性、分散性和稳定性。

### 二、产品参数

产品编号	LTG1210
形态	黑色粉体
厚度 (nm)	1~4nm
单层片径 (μm)	0.5~2
碳含量 (wt.%)	85±5
氢含量 (wt.%)	4.0±0.5
硫含量 (wt.%)	<0.5
铁含量 (ppm)	<800
锰含量 (ppm)	<800
振实密度 (g/L)	50~100
比表面积 (m <sup>2</sup> /g)	100~140
D10 (μm)	0.75~0.85
D50 (μm)	1.85~1.95
D90 (μm)	3.5~4.5

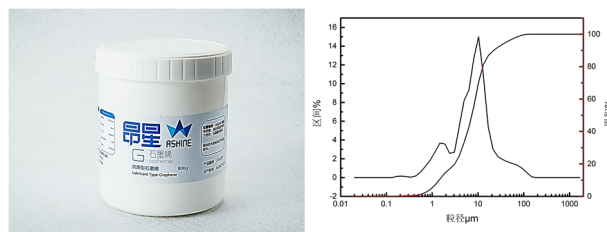


图1. 昂星LTG产品图和粒度分布图谱

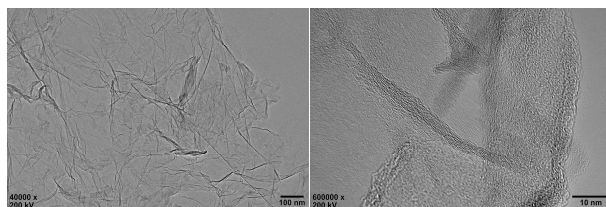


图2. 昂星LTG产品HRTEM图谱

### 三、应用情境举例

1. 该产品作为润滑油脂添加剂片径尺寸小，亲油性能优异，在基础油中分散均匀，并可以填充摩擦副表面的划痕，起到修复作用，有效降低机械磨损和摩擦噪音。
2. 该产品可作为聚合物、陶瓷等材料的填料，能够显著提高基体材料的力学性能，并通过形成的自润滑和高强度的连续转移膜减小了聚合物基体的摩擦系数，大幅提升了基体材料的减摩性能。

### 四、注意事项

**使用安全：**本款石墨烯粉体易飘散，对人体的肺及呼吸道有害，使用过程中请做好相应的粉尘防护。

**贮存运输：**本品室温下密封保存。

本说明书为简要产品说明，具体产品说明请登录公司网站 [www.ashinecarbon.com](http://www.ashinecarbon.com) 查看及下载。

如果对上述内容存在任何疑问或需要相关文献，欢迎联系我们：[Sales@ashinecarbon.com](mailto:Sales@ashinecarbon.com)

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# Lubricant Type Graphene

## Product Information



### I. Product Overview

1. Lubricant Type Graphene, or LTG in short, developed by Ashine has such features as small plate diameter, few layers and excellent lubricating performance.
2. Products of this series have high wettability, dispersibility and stability in lubricating grease and organic phase (such as NMP, DMF, ethylene glycol, terpinol, ethyl alcohol, ethylene glycol monoethyl ether acetate, and so on).

### II. Product Parameters

Product No.	LTG1210
Form	LTG1210
Thickness (nm)	Black powder
Monoayer plate diameter (μm)	~4nm
	0.5~2
Carbon content (wt.%)	85±5
Hydrogen content (wt.%)	4.0±0.5
Sulphur content (wt.%)	<0.5
Iron content (ppm)	<800
Manganese (ppm)	<800
Tap density (g/L)	50~100
BET (m <sup>2</sup> /g)	100~140

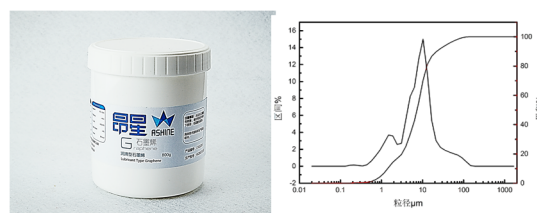


Figure 1. Ashine LTG Product and Gradient Distribution Diagram

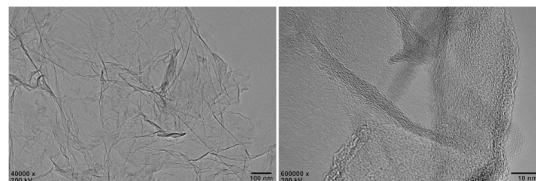


Figure 2. Ashine LTG Product HRTEM Images

### III. Application Example

1. As a lubricating grease additive plate, this product has a small diameter. It has high lipophilicity so that it disperses evenly in base oil. It can fill scratches on friction surfaces to repair such surfaces, effectively reducing physical deterioration and friction noises as a consequence.
2. This product can be used as the filler for polymers, ceramics

and other materials. It can significantly improve the mechanical property of matrix materials, and enhance the antifriction performance by reducing the friction coefficient of polymer matrix with self-lubricating and high-intensity continuous transfer films.

### IV. Notice

**Safe Use:** This graphene product consists of powder which is prone to float. As it can be harmful to the lungs and respiratory tract, please ensure appropriate dust protection when it is used.

**Storage and transportation:** This product is sealed at room temperature.

This manual is a brief product description. Please visit the company's website at [www.ashinecarbon.com](http://www.ashinecarbon.com) to view and download a detailed product description. If you have any questions about the above or require the relevant literature, please contact us at [Sales@ashinecarbon.com](mailto:Sales@ashinecarbon.com).

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