

Ashine-GCP-03



专注研发，只为更高品质

产品说明

一、产品简介

1. Ashine-GCP-03系列产品具有完整的类石墨烯结构，径厚比大，具有优异的导电性和良好的润滑性。
2. 本系列产品因表面含有丰富的亲油性官能团和含氧官能团，在有机相（如NMP、DMF、乙二醇、松油醇、乙醇、乙二醇单丁醚醋酸酯等）和高分子材料中具有较好的润湿性和分散性。
3. 本系列产品适合应用于电子浆料的导电相，在有机体系中具有较好的润湿性，可协同金属粉在体系中形成良好的欧姆接触，并提高玻璃粉的烧结活性。因此，Ashine-GCP-03系列产品在电子浆料中具有独特的优势。

二、产品参数

产品编号	GCP-031	GCP-030
外观	黑色粉体	黑色粉体
厚度 (nm)	3~10	3~10
碳含量 (wt.%)	93~95.4	99.3~99.7
氧含量 (wt.%)	1.8~4.2	0.11~0.3
氢含量 (wt.%)	1.6~2.0	0.11~0.26
硫含量 (wt.%)	0.11~0.13	~0.11
灰分 (wt.%)	<0.8	<0.05
比表面积 (m ² /g)	32~45	38~43
振实密度 (g/L)	160~250	160~270
D50 (μm)	3.62~3.79	3.53~3.56
D90 (μm)	5.50~6.00	6.78~7.09
D100 (μm)	7.96~8.93	8.93~10.02
电导率 (S/m)	~20000	~38000

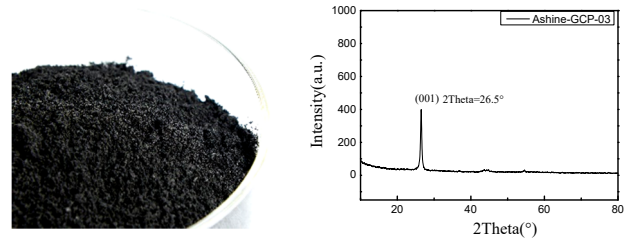


图1. Ashine-GCP-03 产品图和XRD分析

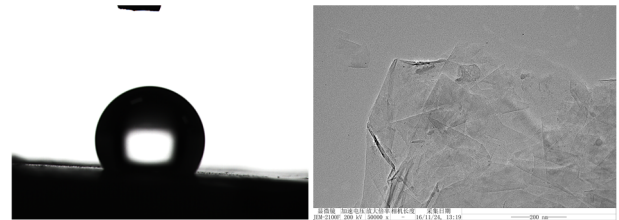


图2. Ashine-GCP-03 产品水接触角和TEM图谱

三、应用情景举例

1. Ashine-GCP-03产品作为高温烧结型电子浆料的导电添加剂，可有效改善浆料的流变性以及连接料与功能相的分布形态，协同功能相在浆料体系中形成良好的欧姆接触，提高浆料的导电性等。在太阳能电池中具有独特的性能优势。
2. Ashine-GCP-03作为低温固化型电子浆料的主体材料或添加剂，可有效改善材料的电子传输，提高导电性等，其浆料可广泛应用于大尺寸触摸屏，薄膜开关，柔性电路和射频识别标签等领域。

四、注意事项

使用安全：本产品为黑色粉末，蓬松质轻、易飘散，对人体肺和呼吸道有害，使用时请做好粉尘防护。

贮存运输：请在常温密闭条件下保存本产品。

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 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

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Ashine-GCP-03

Product Information



FOCUS ON R&D
FOR SUPERIOR QUALITY

I. Product Overview

1. Ashine-GCP-03 series products have a complete graphene structure and a large diameter-thickness ratio, with excellent electric conductivity and good lubricity.
2. Because of its rich oleophilic functional groups and oxygen-containing functional groups on the surface in the organic phase, this product series has better wettability and dispersibility (in such solvents as NMP, DMF, ethylene glycol, terpineol, ethanol, ethylene glycol monobutyl ether acetate, etc.) and in polymeric materials
3. Ashine-GCP-03 products are suitable for the conductive phase of electronic paste, have better wettability in organic systems, can form good ohmic contact with the metal powder in the system, and can improve the sintering activity of glass powder. As such, Ashine-GCP-03 series products have unique advantages in electronic paste.

II. Product Parameters

Product Number	GCP-031	GCP-030
Form	Black powder	Black powder
Thickness (nm)	3~10	3~10
Carbon content (wt.%)	93~95.4	99.3~99.7
Oxygen content (wt.%)	1.8~4.2	0.11~0.3
Hydrogen content (wt.%)	1.6~2.0	0.11~0.26
Sulfur content (wt.%)	0.11~0.13	~0.11
Ash content (wt.%)	<0.8	<0.05
BET (m ² /g)	32~45	38~43
Tap density (g/L)	160~250	160~270
D50 (μm)	3.62~3.79	3.53~3.56
D90 (μm)	5.50~6.00	6.78~7.09
D100 (μm)	7.96~8.93	8.93~10.02
Electric conductivity: (S/m)	~20,000	~38,000

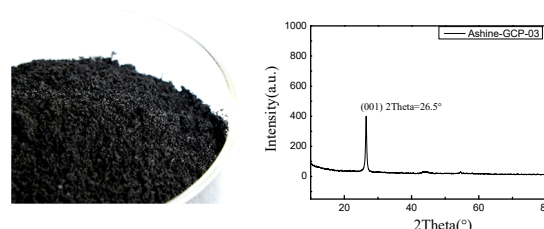


Fig. 1. Ashine-GCP-03 Products and XRD Analysis

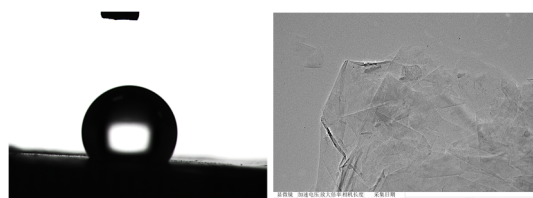


Fig. 2. Ashine-GCP-03 Products WCA and TEM Images

III. Application Example

1. Used as a conductive additive for high-temperature sintering electronic paste, Ashine-GCP-03 products can effectively improve the rheological property of slurry and distribution pattern of bonding material and functional phase, and form good ohmic contact in the paste system in collaboration with the functional phase, thereby improving the electric conductivity of the paste. They also have unique performance advantages in solar cells.
2. As the main material or additive of low-temperature curing electronic paste, Ashine-GCP-03 can effectively improve the electronic transmission of materials and electric conductivity. Its paste can be widely used in large-size touchscreens, membrane switches, flexible circuits and radio frequency identification tags.

IV. Notice

Safe use: This product consists of a black powder which is light and fluffy and 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: Please keep this product in airtight conditions at room temperature.

This manual is a brief product description. Please visit the company's website at 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.

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