



# 气相氧化铝

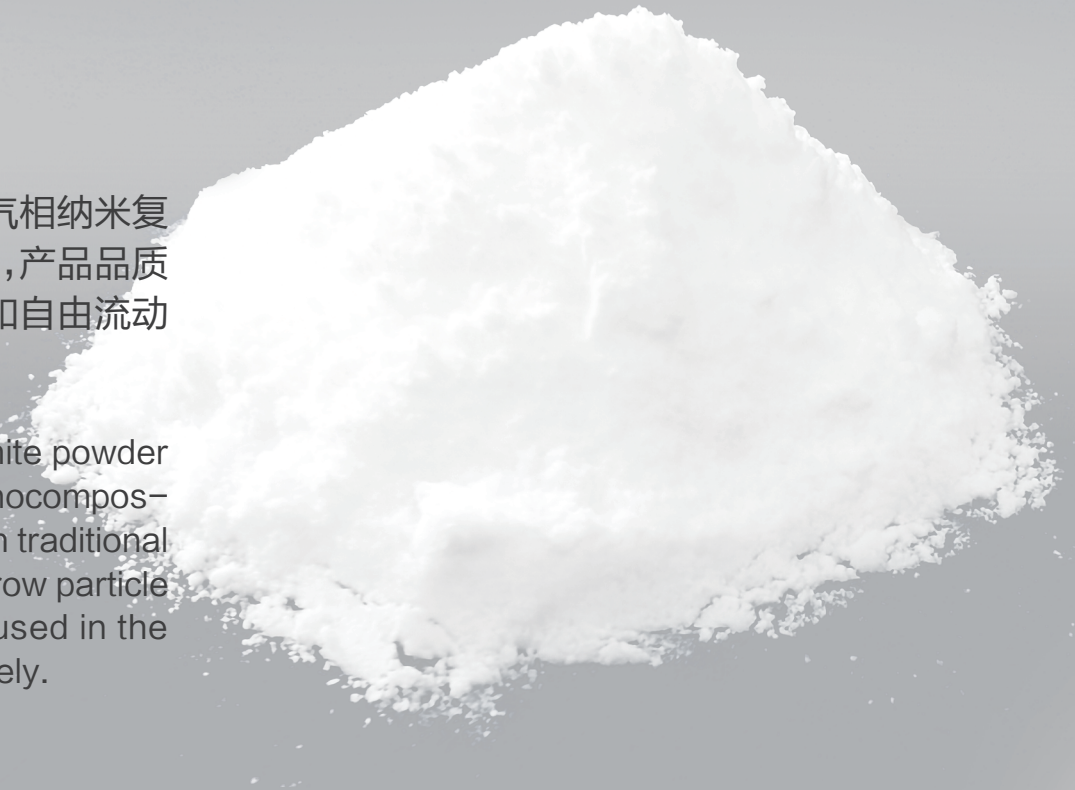
## Gas phase Alumina

产品概述:

Product description:

CHPARASOL<sup>®</sup>气相氧化铝( Alu 200、Alu 200S )采用先进的气相纳米复合陶瓷工艺技术,在等离子火焰下生成的蓬松的高纯度白色粉末,产品品质较传统气相工艺技术的更稳定。产品具有粒径分布窄、晶型规整和自由流动性好等特点。广泛应用于涂料、荧光粉、油墨、新能源等领域。

CHPARASOL<sup>®</sup>gas phase alumina is a kind of fluffy high-purity white powder generated under plasma flame, adopting advanced gas phase nanocomposite ceramic technology, whose quality is more stable compared with traditional gas phase technology. The product have the features such as narrow particle size distribution,crystal structured and good free flow. And it is used in the fields of painting,phosphor powder,printing ink and new energy widely.





### 粉末涂料中应用特点:

The application feature in the powder painting:

CHPARASOL<sup>®</sup> 气相氧化铝是带正电的气相法纳米粉体。所有粉末涂料中均可使用。由于其所具有的正电性, 特别适合于摩擦施工方式, 在特定的情况下, 它能够使无法摩擦起电的粉末变为能够摩擦起电。加入后可减少妨碍流动的静电荷, 并在施工过程中协助粉末沉积。

CHPARASOL<sup>®</sup> gas phase alumina is gas phase method nano powder with positive electricity. All kinds of powder can be used in painting. The powder is well suitable for friction construction method due to its positive electricity. Under certain circumstances, It can make powder that cannot be triboelectricity. After adding, it can reduce the electrostatic charge that hinders the flow and assist the powder deposition during the construction process.

在粉末涂料中极少的添加量 ( 0.1% ~ 0.3% ) 即有显著效果: adding rare gas phase alumina ( 0.1% ~ 0.3% ) into powder painting can be get remarkable effect.

- 提高自由流动性能
- Improve free flow performance
- 增强贮存稳定性
- Enhance storage stability
- 降低吸潮性
- Reduce moisture absorption
- 提高边缘涂层效果
- Improve edge coating effect
- 提高摩擦型粉末的正电带电性
- Improve the positive chargeability of friction powder

上述优异性能得益于生产过程中所获得的纳米级粒度及分散度, 以及颗粒自身表面所带的电荷。

The above-mentioned excellent performance benefits from the nano-scale particle size and dispersion obtained during the production process, as well as the charge on the surface of the particles themselves.



使用方法：（以确保达到预期效果，建议按照以下方法使用）

How to use: (to ensure that the desired effect is achieved, it is recommended to use the following methods)

①添加方法有：

粉末涂料生产过程中，与挤出片料预混合后进行细粉碎、过筛工艺的效果最佳；在转筛入口处匀速送料至粉末中混合、过筛效果较好；与成品粉末干混后效果尚可（混合的深度、以及粉体团聚物打开的程度决定了成品粉末的相关性能）

Adding methods are:

In the powder painting production process, the fine crushing and sieving process after pre-mixing with the extruded sheet has the best effect; At the entrance of the rotary sieve, the material is fed into the powder at a uniform speed for mixing and sieving whose effect is better; The effect is acceptable after dry powder blending with the finished powder (The depth of mixing and the degree of opening of the powder agglomerates determine the relative performance of the finished powder)

②添加时的注意事项：

在输送该粉体材料时需及时导除静电，避免因静电未及时导除造成人员伤害，或因产生火花导致引燃周边可燃物的事件产生；在使用该粉体时，由于密度轻很容易造成扬尘现象，所属空间环境或设施内需有引风或除尘设施，利于降低或避免人员职业危害的风险；该产品包装物为三层牛皮纸包装，具有一定防水、防潮功能，拆包后需尽快用完或及时做好防水、防潮、防污染的措施。

Notes when adding:

when transporting the powder material, you should remove static electricity in time to avoid causing personal injury or generating flame igniting surrounding combustibles; When using the powder, it's easy to cause dust phenomenon because of its light density, and the space environment or facilities need to have induced wind or dust removal facilities to reduce or avoid the risk of personnel occupational hazards; The product packaging is three-layer kraft paper packaging with certain waterproof and moisture-proof function, and after unpacking, you need to use it up as soon as possible or take waterproof, moisture-proof, and anti-pollution measures in time.



产品表征参数:

Product characterization parameters:

Alu 200 物化数据

Alu 200 physical and chemical data

主要指标 Main indicators	单位 Unit	主要指标 Main indicators	参考标准 Guideline
比表面积 BET	m <sup>2</sup> /g	165 ± 35	GB/T 20020-2013 中 5.1
振实密度 Tap density	kg/m <sup>3</sup>	40 ± 10	GB/T 20020-2013 中附录 G
粒径 D50 Particle size	μ m	≤0.2	GB/T 19077.1-2008
灼烧失重 Burning weightlessness	%	≤5	GB/T 20020-2013
PH 值 PH value	-	4.5-5.6	HG/T 4526-2013 中 6.9

Alu 200S( 疏水型 ) 物化数据

Alu 200S (hydrophobic type) physical and chemical data

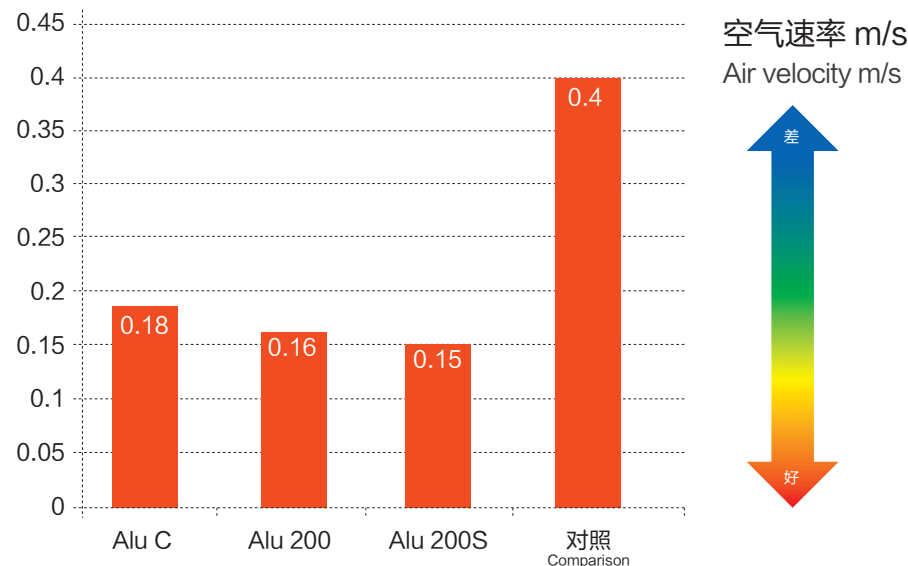
主要指标 Main indicators	单位 Unit	主要指标 Main indicators	参考标准 Guideline
比表面积 BET	m <sup>2</sup> /g	165 ± 35	GB/T 20020-2013 中 5.1
振实密度 Tap density	kg/m <sup>3</sup>	40 ± 10	GB/T 20020-2013 中附录 G
粒径 D50 Particle size	μ m	≤0.2	GB/T 19077.1-2008
碳含量 Carbon content	%	0.6 ~ 1.8	GB/T 20020-2013
PH 值 PH value	-	4.5-5.6	HG/T 4526-2013 中 6.9

应用优势:

Application advantage:

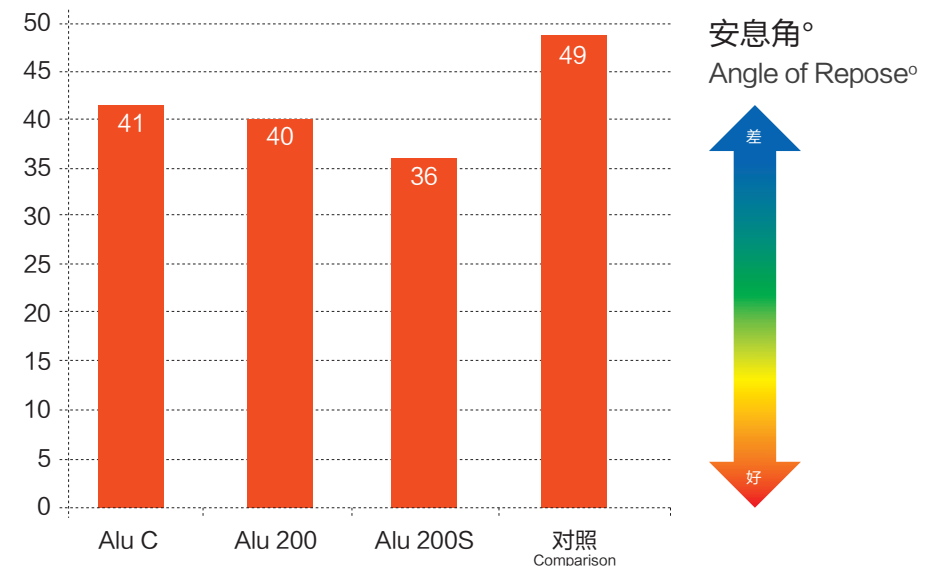
①床层膨胀率 (BER) 是另一个测定粉末流动性时常用的参数, 定义为随着穿过床层的空气速率而发生变化的流化床的高度 H 与初始固定床的高度 H0 之比。膨胀率越大, 意味着粉末性能、流态化能力以及流动性都越好。

① Bed expansion rate is another commonly used parameter when measuring powder flowability which is defined as the ratio of the height H of the fluidized bed that changes with the air velocity through the bed to the height H0 of the initial fixed bed.



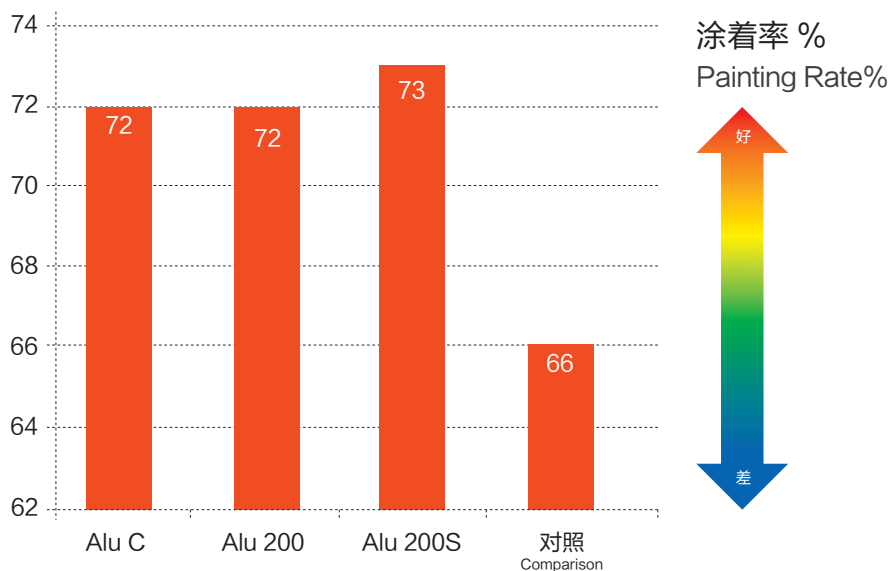
②安息角 (AOR) 是测定粉末流动性时常用的一个参数, 定义为堆面 (由粉末降落到一个平面上堆积而成) 与平面之间的夹角。安息角越小, 意味着流动性越好。

② The angle of repose (AOR) is a commonly used parameter when measuring powder fluidity, which is defined as the angle between the pile surface (formed by the powder falling onto a flat surface) and the flat surface. The smaller the angle of repose, the better the liquidity.





- ③涂着率高可以提高生产效率、降低生产成本。
- ③High coating rate can improve production efficiency and reduce production cost.



- ④CHPARASOL<sup>®</sup>气相氧化铝对粉末涂料的光泽度、成胶时间影响很小。
- ④CHPARASOL<sup>®</sup> gas phase alumina has little effect on the gloss and gel time of powder coatings.

包装概要:  
Package description:

袋装类型: 牛皮纸纸袋、蓬松装、10kg/ 袋;  
Bag type: kraft paper bag, fluffy bag, 10kg/bag;  
托盘类型: 2 袋 / 层、8 层 / 托, 缠绕膜封装;  
Tray type: 2 bags/layer, 8 layers/pallet, wrapped with stretch film;  
20 尺集装箱: 10 托 / 箱、160kg/ 托、1600kg/ 集装箱;  
20-foot container: 10 pallets/container, 160kg/pallet, 1600kg/container  
40 尺集装箱: 20 托 / 箱、160kg/ 托、3200kg/ 集装箱。  
40-foot container: 20 pallets/container, 160kg/pallet, 3200kg/container

注: 运输、储存过程需防水、防潮。  
Note: Waterproof and moisture-proof during transportation and storage.

