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安徽格锐新材料科技有限公司 Anhui Grea New Material Technology Co., Ltd. 安徽格锐新材料科技有限公司

ANHUI GREA NEW MATERIAL TECHNOLOGY CO., LTD.







安徽格锐新材料科技有限公司成立于 2000 年,并于 2015 年 9 月整体搬迁至南谯区腰铺镇光辉路工业集中区新厂址。

企业自成立以来,潜心致力于云母、硅微粉、长石等功能新材料的研发、生产与销售。格锐始终坚持科技为本的发展理念,与国内多所知名高校、科研院所组建产、学、研战略联盟,是国家高新技术企业,建有省级企业技术中心、安徽省云母新材料工程技术研究中心和安徽省博士后科研工作站,先后承担"国家火炬计划"、"国家重点新产品计划"、"重大产业技术攻关计划"和"高新技术产业化计划"等十余项国家级和省部级科研项目,并自主完成几十项研发成果,其中多项达到国际先进水平,获得专利授权 30 余件;主导制定五项国家行业标准。企业获得"安徽省专精特新冠军企业"、"安徽省工业和信息化领域标准化示范企业"、"安徽省 A 级纳税信用单位"、"滁州市纳税五十强"、"南谯区纳税十强"等多项荣誉与称号。

Anhui Grea New Material Technology Co., Ltd. was founded in 2000, and in September 2015, it was relocated to the new factory site in Guanghui Road Industrial Zone, Yaopu Town, Nanqiao District.

Since its establishment, the company has devoted itself to the research & development, production and sales of new functional mica, silica and feldspar powder materials. As a national high-tech enterprise, we always adhere to the Technology-based Development philosophy, and have established a strategic alliance of production, learning and research with many well-known domestic universities and scientific research institutes. We also have established a Provincial-level Technology Center and Anhui New Mica Material Engineering Technology Research Center and Anhui Post-doctoral Research Station, having successively undertaken over 10 national and provincial projects including the "National Torch Plan", "National Key New Product Plan", "Major Industrial Technology Research Plan" and "High-tech Industrialization Plan". We have independently completed dozens of research & development results, many of which have reached international advanced level, obtaining over 30 patents authorization and leading the formulation of 5 national industry standards. Grea has won the title of "Anhui Provincial Specialized and Special New Champion Enterprise", "Anhui Provincial Standardization Model Enterprise in the Field of Industry and Information Technology", "A-Class Tax Credit Unit in Anhui Province", and "Top 50 Taxpayers in Chuzhou City", "Nanqiao District Top Ten Taxpayers" and many other honors and titles.



"格锐"三大系列粉体产品(云母、硅微粉、长石)广泛服务于 PPG、立邦、阿克苏诺贝尔、嘉宝莉、 三棵树、金发科技、钟渊化学、大赛璐、正新轮胎、欧莱雅、莹特丽等国内外知名企业,被广泛应用于涂料、 化妆品、电子、塑料、造纸、橡胶、焊材、新型建材、通信、航天事业等众多行业与领域,并批量出口欧美、 日韩及东南亚等国家和地区。

Grea's main products (mica, silica, feldspar powder) are widely used in coatings, cosmetics, electronics, plastics, paper, rubber, welding materials, new building materials, communications, aerospace, and many other industries and fields in well-known domestic and foreign companies like PPG, Nippon Paint, AkzoNobel, Carpoly, 3trees, Kingfa, KANEKA, DAICEL, Zhengshin Tire, L'Oreal, Intercos etc., we also stretch our footprints to Europe, America, Japan, Korea, Southeast Asia and other countries and regions.





























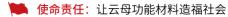








企业文化



Our Mission: Make mica functional materials benefit the society



★★ 企业理念: 格物致知 锐意进取

Our Philosophy: Forging ahead with continuous innovations



行为准则:诚信效率 规范透明

Our Code of Conduct: Integrity, Efficiency, Standardization and Transparency



目标愿景: 致力于成为全球优秀的云母粉材料 供应商

Our Vision: Committed to becoming an excellent supplier of mica materials in the world



🏈 企业精神: 追求卓越 永葆激情

Our Spirit: Pursuing excellence and always keeping passion



服务宗旨: 为客户创造价值 与客户共同成长进步

Our Service: Create value for customers, grow and progress together with customers



企业价值观: 结果负责 重视贡献 为社会创造价值

Our Value: Being Responsible, valuing contribution and creating value for society





数说格锐



8%

每年投入营业收入的 8% 以上用于研发

Over 8% Annual Gross Revenue for R&D investment



. •

连续四次通过 国家高新技术企业认定

National high-tech enterprise for 4 consecutive times



J

主导制定 5 项云母行业标准

Drafting 5 standards for China's Mica Industry



6

连续 6 年荣获"南谯区纳 税十强"称号

> Top 10 taxpayers in Nanqiao District, Chuzhou City for 6 consecutive times



31

授权专利 31 项

31 Authorized Patents

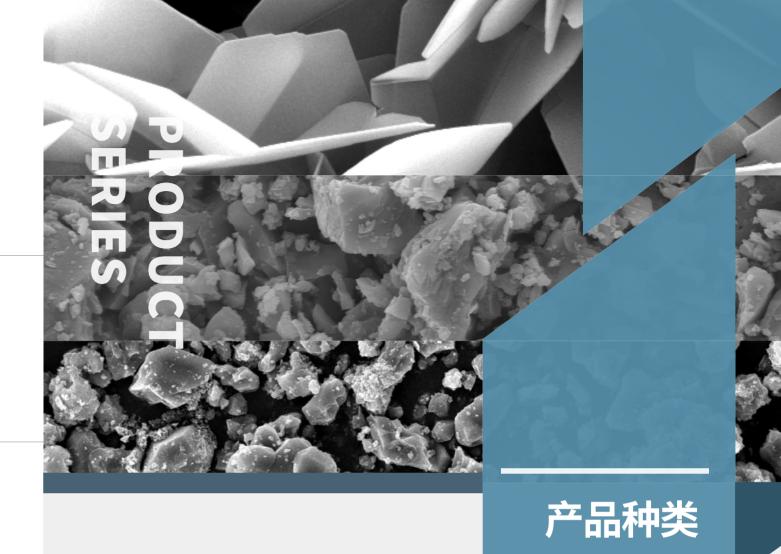


53

与全球前 100 强涂料企业中半 数以上建立合作关系

Establishing firm cooperation with 53 coatings customers among the Top 100 worldwide





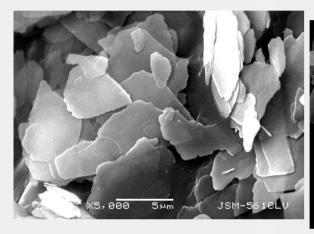
- **1** 云母粉系列 MICA POWDER SERIES
- **长石粉系列** FELDSPAR POWDER SERIES

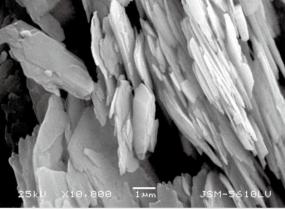




云母粉系列

云母粉 SEM MICA POWDER SEM PHOTOS





产品介绍 PRODUCT INTRODUCTION

云母是含钾、铝等元素的层状硅酸盐矿物的总称,是地壳上的主要造岩矿物之一,由两层硅氧四面体夹着一层铝氧八面体构成的 2:1 型结构。云母可剥分成极薄的片状、径厚比大、有弹性、可弯曲,具有独特的云母光泽。同时,具有理化性质稳定,耐酸碱、耐高温、电绝缘、耐磨性好等显著特点。

云母一般分为白云母亚族(白云母、绢云母)、黑云母亚族(黑云母、金云母)和锂云母亚族(锂云母), 其中最具有工业价值的为绢云母、白云母和金云母。云母矿物因 Fe、Mg 等元素含量的不同而引起云母矿物的颜色、 硬度等性能发生变化。例如,从颜色上,以黑云母色最深,金云母次之,白云母色最浅。

Mica is a general term for layered silicate minerals containing potassium, aluminum and other elements, which is one of the main rock-forming minerals on the earth's crust. It is a 2:1 type composed of two layers of silicon-oxygen tetrahedra and a layer of aluminum-oxygen octahedra structure. Mica can be stripped into extremely thin flakes with a large diameter-to-thickness ratio, elastic, bendable, and has a unique mica luster. It has outstanding characteristics such as stable physical and chemical properties, acid and alkali resistance, high temperature resistance, electrical insulation and good wear resistance.

Mica is generally divided into muscovite subfamily (muscovite, sericite), biotite subfamily (biotite, phlogopite) and lepidolite

subfamily (lepidolite), among which the most industrially valuable are sericite, muscovite and Phlogopite. The color, hardness and other properties of mica minerals change due to the different content of elements such as Fe and Mg. For example, in terms of color, biotite is the darkest, followed by phlogopite and muscovite is the lightest.

■产品特点 FEATURES



典型数据 TYPICAL DATA

■绢云母系列 SERICITE SERIES

风选绢云母粉 Dry-ground Sericite Powder

	GB-2	GB-3	GB-4		
外观 Appearance	白色粉末 White Powder	白色粉末 White Powder	白色粉末 White Powder		
白度 Whiteness	70±2	70±2	73±1		
平均粒径,μm D50 <u>※</u>	19±1.5	18±1.5	15±1.5		
105°C挥发物,% Volatile At 105°C	≤ 1.0				
吸油量,g/100g Oil Absorption	25-50				
PH 值 PH Value	8-10				
325 目筛余率,% 325 Mesh Sieve residue	≤ 1.0	≤ 0.2			
松散密度,g/cm3 Loose Density	0.37	0.27			
比重,g/cm3 Specific Gravity	2.65				
耐温度,°C Temperature Resistance	550				
莫式硬度 Mohs hardness	2.5				
相对介电常数 Relative permittivity	6-8				

Malvern mastersizer 3000

注: 以上为典型数据,具体产品参数依据企业检验报告。

Note: The above are typical data, and the specific product parameters are based on the company's inspection reports.

湿法绢云母粉 Wet-ground Sericite Powder

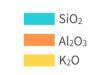
	GA-1	GA-2	GA-4	GA-5	GA-6
外观 Appearance	白色粉末 White Powder				
白度 Whiteness	76±1	77±1	78±1	78±1	78±1
平均粒径,μm D50 <mark>※</mark>	19±1.5	18±1.5	17±1.5	16±1.5	15±1.5
105℃挥发物, % Volatile At 105℃	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	≤ 0.8
吸油量,g/100g Oil Absorption	25-50				
PH 值 PH Value	4-7				
325 目筛余率,% 325 Mesh Sieve residue	≤ 2.0	≤ 1.0	≤ 0.4	≤ 0.4	≤ 0.2
松散密度,g/cm3 Loose Density	0.34	0.29	0.25	0.24	0.19
比重,g/cm3 Specific Gravity	2.65				
耐温度,°C Temperature Resistance	550				
莫式硬度 Mohs hardness	2.5				
相对介电常数 Relative permittivity	6-8				

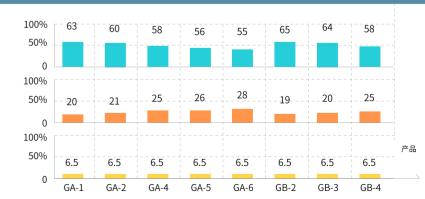
* Malvern mastersizer 3000

注: 以上为典型数据,具体产品参数依据企业检验报告。

Note: The above are typical data, and the specific product parameters are based on the company's inspection reports.

绢云母粉典型化学成分 REGULAR CHEMICAL COMPOSITION OF SERICITE POWDER





注:以上仅为典型值,非规定值。

Note: The above are only regular values, not specified ones.

 $\underline{10}$

■白云母粉系列 MUSCOVITE POWDER SERIES

白云母粉典型数据 Typical data of muscovite powder

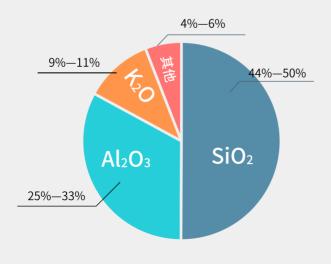
	GZ-1	GZ-2	GZ-3	GM-2	GM-201
外观 Appearance	白色粉末 White Powder				
105℃挥发物,% Volatile At 105℃	≤ 1.0	≤ 1.0	≤ 1.0	≤ 0.8	≤ 0.8
PH 值 PH Value	8-10				
筛余率,% Sieve residue	≤ 0.5 (40 目)	≤ 1.0 (100 目)	≤ 0.5 (100 目)	≤ 3.0 (325 目)	≤ 2.0 (200 目)
松散密度,g/cm3 Loose Density	/	0.32	0.35	0.12	0.13
比重,g/cm3 Specific Gravity	2.65				
耐温度,°C Temperature Resistance	550				
莫式硬度 Mohs hardness	2.5				
相对介电常数 Relative permittivity	6-8				

注:以上为典型数据,具体产品参数依据企业检验报告。

Note: The above are typical data, and the specific product parameters are based on the company's inspection reports.

白云母粉典型化学成分 Typical chemical composition of muscovite powder

成分 Composition	含量 % Percentage	
SiO ₂	44-50	
Al ₂ O ₃	25-33	
K ₂ O	9-11	
其他 Others	4-6	



注:以上仅为典型值,非规定值。

Note: The above are only regular values, not specified ones.

■金云母粉系列 PHLOGOPITE POWDER SERIES

金云母粉典型数据 Typical data of phlogopite

	GP-1	GP-2	
外观 Appearance	棕灰色粉末 Brown-gray Powder	棕灰色粉末 Brown-gray Powder	
平均粒径,μm* D50 μm <u>*</u>	≤ 40	≤ 62	
105°C挥发物,% Volatile At 105°C	≤ 1.0		
吸油量,g/100g Oil Absorption	25-50		
PH 值 PH Value	8-10		
筛余率,% Sieve residue %	≤ 1.5 (150 目)	≤ 1.0 (100 目)	
松散密度,g/cm3 Loose Density	0.21 0.28		
比重,g/cm3 Specific Gravity	2.75		
耐温度,°C Temperature Resistance	900		
莫式硬度 Mohs hardness	3		
相对介电常数 Relative permittivity	7.5		

* Malvern mastersizer 3000

注: 以上为典型数据,具体产品参数依据企业检验报告。

Note: The above are typical data, and the specific product parameters are based on the company's inspection reports.

金云母粉典型化学成分 Phlogopite powder chemical composition

成分 Composition	含量 % Percentag
SiO ₂	38-48
Al ₂ O ₃	10-17
MgO	21-30
其他 Others	5-15
	_

注:以上仅为典型值,非规定值。

Note: The above are only regular values, not specified ones.

典型应用效果 TYPICAL APPLICATION EFFECT

助力重防腐涂料性能提升

改善防腐涂料连续冷凝和耐中性盐雾性能

Improving the continuous condensation and neutral salt spray resistance of anti-corrosion coatings

代替部分防锈颜料,降低配方成本

Replacing part of anti-rust pigments, reducing formula cost

二维片状结构叠加,提高涂膜的防腐致密性

Two-dimensional sheet structure superimposed to improve the anticorrosion stability of the coating film

具有黏土矿特性,悬浮性好,提升涂料的储存稳定性

With the characteristics of clay ore, good suspension, improving the storage stability of the coating

力水性工业漆性能提升

改善水性防腐涂料的连续冷凝和耐中性盐雾性能

Improving the continuous condensation and neutral salt spray resistance of water-based anti-corrosive coatings;

部分替代水性防腐涂料中的防锈颜料,降低配方成本

Partially replacing anti-rust pigments in water-based anti-corrosion coatings, reducing formulation costs;

■应用场景介绍 APPLICATION



- 船舶涂料
- Marine coatings



- 桥梁涂料
- Bridge coatings



- 管道涂料
- Pipeline coatings



- 储罐涂料
- Storage tank coatings



- 风电涂料
- Wind power coatings

■应用场景介绍 APPLICATION



- 水性钢结构涂料
- Water-based steel structure coatings



- 工程机械涂料
- Construction machinery coatings



- 集装箱涂料
- Container coatings





助力建筑墙面漆性能提升

湿磨云母粉,优异的片层结构,对配方遮盖有增强作用,提高 内墙乳胶漆的涂布率

Wet-milled mica powder, excellent lamella structure, enhancing the coverage of the formula, and improving the coating rate of interior wall latex paint

具有抗透水性,能够有效阻止污渍渗入漆膜中,抗裂

It has anti-permeability, can effectively prevent stains from penetrating into the paint film, and resist cracking

提升漆膜的强度和表面平整度,从而提高漆膜的耐擦洗性能

It can improve the strength and surface flatness of the paint film, thereby improving the scrubbing resistance of the paint film;

力粉末涂料性能提升

化学惰性: 提升耐中性盐雾、耐酸、耐碱等防腐蚀性能; 可替 代部分防锈颜料使用,降低成本;采用云母粉的防腐蚀体系, 能够使各种设施设备在腐蚀性环境中安全可靠地长期运行,保 护外观。

Chemical inertness: Improving the anti-corrosion performance of neutral salt spray, acid and alkali resistance; replacing some anti-rust pigments to reduce costs; the use of mica powder anti-corrosion system can make various facilities and equipment in corrosive environments safe and reliable for longterm operation and protect the appearance.

耐高温性能: 耐高温最高达 550 度; 提升漆膜耐水煮泛白性能;

High temperature resistance performance: high temperature resistance up to 550 degrees; improving the water boiling whitening resistance of the paint film;

消光效果: 可替代部分消光剂使用,降低成本

Matting effect: Replacing some matting agents to reduce costs

■应用场景介绍 APPLICATION



- 外墙涂料
- Exterior wall paint



- 内墙涂料
- Interior wall paint



- 无机涂料
- Inorganic coatings



- 防火涂料
- Fireproof coatings





- Thermal insulation reflective coatings

■应用场景介绍 APPLICATION



- 高温粉
- High temperature powder



- 砂纹粉
- Sand grain powder



- 防腐粉
- Anti-corrosive powder



• 防水涂料

• Thermal insulation reflective coatings

• 隔热反射涂料

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格锐新材

BUD 根胶制品性能提升的力橡胶制品性能提升

高径厚比的二维片状结构——让轮胎的气密性能得以提高

High-diameter-thickness ratio of two-dimensional sheet structure-improving the air tightness of the tire

1

补强功能——替代部分炭黑,降低生产成本

Reinforcing function-replacing part of carbon black, reducing production



天然的高耐磨材料——让轮胎使用寿命更长久

Natural high wear-resistant materials-making tires last longer

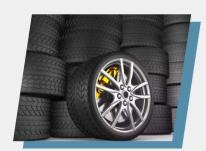
3

矿物特性——优良的脱模效果

Mineral properties-excellent demoulding effect

4

■应用场景介绍 APPLICATION



- 轮胎
- Tires



- 密封件
- Seals



- 硅橡胶
- Silicone rubber

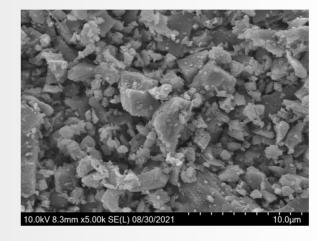


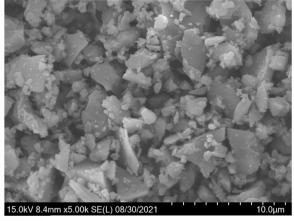
- 隔离剂
- Release agent

QUARTZ POWDER SERIES 02

硅微粉系列

SEM 图片 SEM PICTURE





产品简介 PRODUCT INTRODUCTION

硅微粉是一类用途极为广泛的无机非金属粉体,由石英矿经选矿、破碎、清洗、球磨、气流分级等多道工艺加工而成的具有化学惰性的高性能填充材料。产品硬度 6-7,比重 2.6-2.8,具有吸油量低、易分散、硬度高等特点。

格锐硅微粉具有较高的化学纯度,产品特有的低比表面积和低吸油量使其在涂料、胶粘剂、硅橡胶和环氧树脂灌封料中具有较高的填充量而广泛使用。

Silica Powder is a kind of inorganic non-metallic powder with a wide range of uses. It is a chemically inert high-performance filling material processed from quartz ore through multiple processes such as beneficiation, crushing, cleaning, ball milling, and airflow classification. The product has a hardness of 6-7 and a specific gravity of 2.6-2.8. It has the characteristics of low oil absorption, easy dispersion, and high hardness.

Grea silica Powder has high chemical purity. The product's unique low specific surface area and low oil absorption make it suitable for coatings, adhesives, silicone rubber and epoxy resins. The potting compound has a high filling amount and is widely used.

■产品特点 FEATURES

1 ONE

吸油量低,易分散,增加填充量均衡配方 综合成本

Low oil absorption, easy to disperse, increasing the filling amount and balancing the overall cost of the formula

4 FOUR

良好的绝缘性,性能稳定,电绝缘性能优异

Good insulation, stable performance, and excellent electrical insulation performance

硬度高,改善制品的机械强度,提高产品 刚性及耐磨性

High hardness, improving the mechanical strength of the product, and increasing the rigidity and wear resistance of the product

2TW0

优异的化学稳定性,具有较强的抗腐蚀

Excellent chemical stability and strong corrosion resistance

THREE

典型数据 TYPICAL DATA

	GSF-1	GSF-2	GSF-3	GSF-401	GSF-402	GSF-403
白度 Whiteness	≥ 80	≥ 80	≥ 81	≥ 86	≥ 87	≥ 88
平均粒径,D50 μm*	≤ 12	≤ 10	≤ 6	≤ 10	≤ 8	≤ 6
105°C挥发物,% Volatile At 105°C	≤ 0.5					
吸油量,g/100g Oil absorption	20-24	20-24	22-28	18-22	19-24	22-28
325 目筛余率,% 325 Mesh Sieve residue	≤ 0.5	≤ 0.1	≤ 0.05	≤ 2.0	≤ 0.2	≤ 0.1
比重,g/cm3 Specific Gravity	2.65					
莫式硬度 Mohs hardness	6.5	6.5	6.5	7	7	7
相对介电常数 Relative permittivity	4.65					

GREA

产品特点 硅微粉系列

****** OMEC POP-6

注: 以上为典型数据,具体产品参数依据企业检验报告。

Note: The above are typical data, and the specific product parameters are based on the company's inspection reports.

典型应用 TYPICAL APPLICATIONS

- 吸油量低,易分散
- 硬度高 提高涂料体积固含
- low oil absorption
- easy to disperse
 improving the hardness of the paint film and the volume concentration of the paint







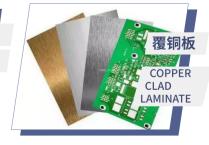


- 吸油量低 硬度高,耐磨性好
- 流平性好
- low oil absorption
- high hardness and improved wear resistance
- good leveling

- 硬度高
- 有助于提升抗压、抗拉、抗冲击等 机械性能
- high hardness
- helping to improve mechanical properties such as compression, tension, and impact resistance
- 降低体系粘度 热膨胀系数低
- 改善加工性能 收缩率小
- Reducing system viscosity
- improving processing performancelow thermal expansion coefficient
- low shrinkage rate





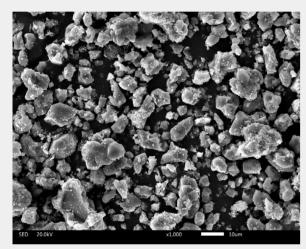


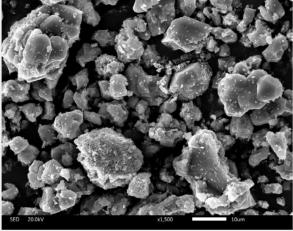
- 补强性好
- 改善机械性能
- good reinforcement
- improving mechanical properties
- 流动性好
- 改善耐磨性提升附着力
- Good fluidity
- improving abrasion resistance and adhesion
- 化学性能稳定 热膨胀系数低
- 弯曲强度,尺寸稳定性好
- stable chemical properties
- low thermal expansion coefficient
- good bending strength, and good dimensional stability

FELDSPAR POWDER SERIES

长石粉系列

SEM 图片 SEM PICTURE





产品简介 PRODUCT INTRODUCTION

长石是含钠、钾的铝硅酸盐矿物,颗粒呈坚硬的棱角状,是地壳中最常见的造岩矿物之一。长石的莫氏硬度 6,比重 2.5—2.7,熔点 1100—1300℃,具有较高的抗压强度,化学稳定性佳,广泛应用于海洋工程、船舶、重防腐、木器、装饰和粉末涂料等防腐涂料领域。

Feldspar is an aluminosilicate mineral containing sodium and potassium with a framework-like crystal structure. It is one of the most common rock-forming minerals in the earth's crust. Feldspar has a Mohs hardness of 6, a specific gravity of 2.5-2.7, and a melting point of 1100-1300°C. It has high compressive strength and good chemical stability, widely used in marine engineering, shipbuilding, heavy anti-corrosion, woodware, decoration and powder coatings, etc. field.



化学成分(典型平均值) CHEMICAL COMPOSITION (TYPICAL AVERAGE VALUE)

成分 Composition	含量 % Percentage	8%—13%
SiO ₂	65-70	
Al ₂ O ₃	18-23	65%—70%
Na₂O	8-13	0370=1070
		Al ₂ O ₃
	_	18%—23% SiO ₂

注: 以上仅为典型值,非规定值。

Note: The above are only regular values, not specified one

典型数据 TYPICAL DATA

	GC-800	GC-900	GC-3	
白度 Whiteness		≥ 80		
平均粒径,D50 μm *	≤ 5	≤ 4	≤ 4	
105°C 挥发物 Volatile at 105° C,%		≤ 0.5		
吸油量,Oil absorption g/100g	18-25	20-27	20-27	
筛余率, Sieve residue%	≤ 0.1(325 目)	≤ 0.1 (400 目)	≤ 0.1 (600 目)	
PH 值 PH Value		8-10		
松散密度,Loose density g/cm3	0.49	0.43	0.41	
比重,Specific gravity g/cm3	2.65			
模式硬度 Mohs hardness	6			
相对介电常数 Relative permittivity	7.5			

*OMEC POP-6

注: 以上为典型数据,具体产品参数依据企业检验报告。

Note: The above are typical data, and the specific product parameters are based on the company's inspection reports.

典型应用 TYPICAL APPLICATIONS



- 船舶涂料
- Marine Coatings



- 集装箱涂料
- Container Coatings



- 工程机械涂料
- Construction machinery Coatings



- 桥梁涂料
- Bridge Coatings



- 储罐涂料
- Storage tank Coatings



- 建筑涂料
- Architectural Coatings