



锌盾产品说明书

ZD8580 有机硅耐高温铝粉漆 600℃

ZD8580 Organic Silicon High-temperature Resistant Aluminum Powder Paint 600 °C

产品说明

Product description

一种由有机硅树脂、耐高温铝粉、添加剂、有机溶剂、特种固化剂等组成的双组份涂料。

A two-component coating composed of organic silicon resin, high temperature resistant aluminum powder, additives, organic solvents, special curing agents, etc.

主要特征

Key features

- 可长期耐 600℃ 高温，拥有较强的防腐蚀能力；
- Can withstand high temperatures of 600 °C for a long time and has strong anti-corrosion ability;
- 可常温交联自干，24 小时硬度可达 H 以上；亦可高温干燥 150℃，30min。
- It can crosslink and self-drying at room temperature, and its hardness can reach H or above within 24 hours; It can also be dried at high temperature of 150 °C for 30 minutes.

设计用途

Recommended use

用于高炉、热风炉外壁高温防腐，也可用于烟囱、烟道、排气管、高温热气管道、加热炉、热交换器以及其它金属表面要求高温防腐的保护。

Used for high-temperature anti-corrosion of the outer walls of blast furnaces and hot blast stoves, as well as for the protection of chimneys, flues, exhaust pipes, high-temperature

hot gas pipelines, heating furnaces, heat exchangers, and other metal surfaces that require high-temperature anti-corrosion.

规格数据

Basic data

颜色: 银色

Color: silvery

质量固体含量: $64 \pm 2\%$

Quality solid content: $64 \pm 2\%$

体积固体含量: $50 \pm 2\%$

Volume solids: $50 \pm 2\%$

典型混合密度(kg/L): 1.3 ± 0.1

Typical density(kg/L): 1.3 ± 0.1

典型膜厚与理论涂布率

Typical dry film thickness and theoretical spreading rate

| | 最低 Minimum | 典型 Typical | 最高 Maximum |
|---|---------------|---------------|---------------|
| 干膜厚度 (μm) Dry film thickness (μm) | 30 | 60 | 80 |
| 湿膜厚度 (μm) Wet film thickness (μm) | 60 | 120 | 160 |
| 理论涂布率 (m^2/L) theoretical spreading rate (m^2/L) | 16.6 | 8.3 | 6.25 |
| 理论涂布率 (m^2/kg) theoretical spreading rate (m^2/kg) | 12.6 | 6.4 | 4.8 |

实际涂布率:

允许适当的损耗系数

Practical spreading rate:

consider appropriated loss factor

出厂 VOC 含量(g/l):

~460 (按 GB 30981.2-2025 检测)

VOC(supplied, g/L):

~460 (follow GB 30981.2-2025)

施工说明

Application instruction

适用底材与表面处理

Suitable substrate and treatment

底材状况

Substrate condition

- 新钢材：先用适当的清洁剂除去钢板表面的油脂和其它污染物。去除焊渣，磨平尖锐边缘和焊缝，使规定的漆膜厚度能均匀地涂布在全部表面上。所有切割、电焊、磨平钢板的工序应尽可能在表面处理之前完成，然后喷砂清理至 Sa2.5-3 级（ISO8501-1），表面粗糙度为 30-75 微米(Rz)。表面粗糙度过低，会减少涂膜附着力，相反如果粗糙度也应避免过高，以防点蚀。
- Bare steel: use a suitable cleaner to remove oil/grease and other contaminants from the surface。 Remove welding slag, grind sharp edges and weld seams, ensure specified paint film thickness can be evenly applied to all surfaces. It can be completed before surface treatment and then blasted to Sa2.5-3 (ISO8501-1) prior cutting, welding, and grinding of steel surface, with a surface roughness of 30-75 microns (Rz). The adhesion will loss If the surface profile is too low, revised the spot corrosion can happen if the profile is too high.

施工和固化条件

Application and cure condition

底材温度和施工条件

substrate temperature and application conditions

- 施工环境温度 5~38℃，空气相对湿度不大于 85%，并且底材表面温度应最少大于露点 3℃；雨、雾、雪、大风和较大灰尘等恶劣天气，禁止户外使用；
- The application environment temperature should be within 5-38 °C , the relative humidity should not exceed 85%, and the substrate temperature should be at least 3 °C above the dew point; Outdoor application is prohibited in adverse weather conditions such as rain, fog, snow, strong winds, and sandstorm etc.
- 气温高，小心干喷，在狭窄空间施工和干燥期间，需大量通风；

- Attention to dry spraying at high temperatures. During application in narrow spaces and curing period, adequate ventilation is required;

油漆混合

Product mix

- 混合：本产品为两罐装，组成一个单元供应。使用时先用搅拌器搅匀主漆，把固化剂规定比例加入，用搅拌器搅匀，并添加适量配套稀释剂调整到合适的施工粘度。一经混合，必须在规定的混合适用期内使用。
- Mixing: This product is available in two cans as one set. Before application, firstly stir the main part evenly with a mixer, adding the curing agent at the specified ratio, mix evenly with a mixer, and add an appropriate amount of thinner to adjust to the appropriate application viscosity. Once mixed, it must be used up within the pot life.
- 稀释剂/清洗剂：X-200 稀释剂
- Thinner/cleaner: ThinnerX-200
- 混合比例（重量比）： 甲（主漆）：乙（固化剂）=10： 1
- Mixing ration (by weight) : A (main) : B (cure agent) =10: 1
- 熟化时间：无
- Induction time: none

混合后适用期（合适的施工粘度）

Pot life (suitable application viscosity)

| | | | | |
|--|-----|------|------|------|
| 油漆温度(°C) Paint temperature (°C) | 5°C | 15°C | 25°C | 35°C |
| 适用期（小时） Pot life(hours) | 5 | 4 | 3 | 2 |

施工参数

Application data

| | | | | |
|----------------------------|--------------------|-------------------------|-------------------|-----------------------|
| 施工方法 Application method | 单 位 Unit | 高压无气喷涂 Airless spray | 空气喷涂 Air spray | 刷涂/辊涂 Brush/roller |
| 喷枪孔径 Nozzle orifice | mm | 0.38~0.53 | 1.5~2.5 | --- |
| 喷涂压力 Nozzle pressure | kg/cm ² | 150~200 | 3~4 | --- |
| 稀 释 量* Thinner | % | 0~5 | 0~10 | 0~3 |

*稀释剂添加量取决于膜厚要求和施工条件

*Thinner usage depends on required thickness and application condition

补充参数

Addition data

覆涂间隔（干膜为 60 微米时）

Over coating interval (60 μm DFT)

| | | | | |
|---|----|----|----|----|
| 底材表面温度 (°C) Substrate temperature (°C) | 5 | 15 | 25 | 35 |
| 表干 (分钟) Surface dry (min) | 60 | 45 | 25 | 15 |
| 硬干 (小时) Dry to handle (hrs) | 24 | 14 | 10 | 6 |
| 最短覆涂间隔 (小时) | 24 | 14 | 10 | 6 |

| | | | | |
|---|---|--|--|--|
| Minimum over coating interval (self) (hrs) | | | | |
| 最长覆涂间隔 Maximum over coating interval(self) | 不限，但因长期暴露而产生的粉化层必须在覆涂前彻底清理掉。 No limit, but surface should be roughened and fully cleaned after long-term exposure | | | |

注：以上数据都是在通风状况良好、典型膜厚、相对湿度≤75%的条件下测得数据，仅供参考。实际干燥时间及覆涂前的时间间隔可长可短，取决于漆膜厚度、通风状况、湿度、下层油漆、提前装卸需求和机械强度等因素的影响。

Notice:

above are typical data based on good ventilation, typical film thickness and relative humidity ≤75%, just for reference only.

Real drying time base on impact of over coating interval, film thickness, ventilation, humidity, undercoat, ahead of loading and unloading and mechanical strength requirement etc.

过多添加稀释剂通常会导致湿膜的抗流挂性能降低及固化速度减慢。

Adding too much thinner results in sag resistance reduction and slower cure.

典型油漆配套

Notification

- **前道：** 必须是完全喷砂最少 Sa2.5 的碳钢底材，或配套的有机硅底漆。
- Previous coat: must fully blasted at least Sa2.5 carbon steel, or a matching silicone primer.
- 具体向无锡华东锌盾科技有限公司咨询。
- For details, please consult ZINDN company.

备 注

Notification

- 本品只能涂覆在经良好喷砂清理至出白的裸碳钢底材表面，或配套的有机硅涂料上。

- It can only be applied on bare carbon steel bare steel substrates which completely blasted to see white., or on the matching silicone coating.
- 必须使用规定的稀释剂。
- Must use be used approved thinner.
- 在配漆过程中，严禁与水，酸、碱等接触。
- During the painting process, contact with water, acid, alkali, etc. is strictly prohibited.
- 施工及干燥固化期间，相对湿度不得大于 85%。
- The relative humidity should be no more than 85% when application and curing process.

包装、储存与有效期

Package, storage and shelf life

包装规格

package size

| 组份 components | A（主料） | B（固化剂） |
|---------------------------------|---------------|-------------|
| 包装桶规格 Container size | 20 升 20 L | 3 升 3L |
| 包装量（重量） Package size(weight) | 20 公斤 20kg | 2 公斤 2kg |

闪点: >25℃（混合物）

Flash Point: > 25 °C(Mixed)

储存条件

Storage condition

- 须按照国家规定储存。储存环境应干燥、阴凉、通风良好并避开热源和火源。包装容器必须保持密闭。
- Must follow national rules. Should be dry, cool, good ventilation and away heat and fire. The container should be well sealed.

储存有效期

Shelf life

- 良好储存条件下的储存有效期为 1 年。此后需检验合格后使用。
 - 1 year at good storage condition. After this period the product must be inspected and approved prior to use.
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健康、安全与环境保护

Health, safety and environment

- 本品含有易燃物，施工现场安全应符合有关国家或当地政府规定。请注意包装上的安全标签并阅读产品安全数据手册（MSDS）。
 - 避免吸入溶剂蒸气和漆雾，避免油漆接触皮肤和眼睛，严禁吞服本产品，采取必要的预防和防护措施防火、防爆和保护环境。需在通风良好的情况下使用本品。在狭窄处或空气不流通处施工，必须提供强力通风。
 - 废弃物处理必须符合有关国家或当地政府规定。
 - This product contains flammable components; the application site has to meet national safety and local government requirement. More details please read and follow material safety data sheet (MSDS).
 - Avoid solvent vapor and paint mist, avoid contacting skin and eyes, forbidden swallowing, must have necessary to have prevention and protection for fire, exploration and environment protection solutions. Application under good ventilation, provide sufficient ventilation when in narrow space and in non-good air flow.
 - Waste treatment has to follow national and local government requirement.
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声 明

Declare

本产品资料及数据是根据我们的试验和实际使用中的经验而积累的，可作为施工指南，但由于产品的使用通常在我们的控制范围之外，所以我们只提供产品本身质量的保证。我公司保留不预先通知而根据产品的不断改进而进行修改的权利。

The product documents and data based our experiments and application experience, use

for application instruction. The application condition is usually out of our control; we only warrant product quality itself. **ZINDN** keeps the authority to modify for improvement without pre-notification to customers.

版本信息

Version

修改于 2026 年 1 月，本说明书取代以前的版本,如有其它语言，最终以中文为准。

Revised in January 2026, this version is instead of previous version. The other languages are subjected to Chinese technical data sheet

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