锌盾产品说明书

ZD83-02 ZINDN Silver rich zinc coating

Product description:

A single component heavy-duty anti-corrosion coating composed of fusion agent, zinc powder, aluminum silver paste, solvent, etc., with silver white metal effect.

Main features:

The use of specialized zinc powder in combination with coated sheet aluminum powder results in a good metallic effect; The parallel arrangement of flake aluminum powder in the coating film can prevent the invasion of moisture, ultraviolet rays, and other factors into the coating film.

Single component usage is simple and convenient.

Excellent outdoor rain resistance and color change resistance.

The zinc content in the dry film is ≥ 83%, and the aluminum content is ≥ 13%.

Designed for:

Suitable for long-term anti-corrosion coating of steel structures, it can be used as a single coating or paired with cold sprayed zinc primer as a topcoat; It can also be used for the maintenance and repair of galvanized components, and is the best material to replace or repair hot-dip zinc and hot-dip galvanized layers.

Specification data:

Color: Silver White

Gloss: Matte

Mass solid content: 60 ± 2%

Volume solid content: 30 ± 3%

Density (kg/L): 1.6 ± 0.1

Typical film thickness and theoretical coating rate:

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	Minimum	Typical	Highest*
Dry film thickness (μm)	20	40	80
Wet Film Thickness (μm)	67	133	267
Theoretical Coverage (kg/m^2)	0.106	0.213	0.427

*The recommended maximum film thickness for silver rich zinc coating as the topcoat of cold sprayed zinc coating is 40μm。

Actual coating rate: allows for an appropriate loss coefficient

VOC content: ≤640g/L

Construction Description

Applicable substrate and surface treatment:

New steel: Use appropriate cleaning agents to remove surface grease, and rinse the surface with fresh water to remove salt and other dirt. Remove welding slag, smooth the weld seam and sharp edges, spray clean to Sa2.5 level (ISO8501-1), and achieve a surface roughness of Rz40 μm~75 μm (moderate roughness in ISO8503-1 comparison plate) as the best. It is best to paint within 4 hours after spray cleaning.

Galvanized surface repair: Thoroughly remove surface grease with appropriate cleaning agents, clean salt and other dirt with high-pressure fresh water, use power tools to polish small areas of rust, and use this product for repainting.

Construction and solidification environmental conditions:

The construction environment temperature should be 0-50 ℃, the relative humidity of the air should not exceed 95%, and the surface temperature of the steel should be 3 ℃ higher than the dew point; Outdoor use is prohibited in adverse weather conditions such as rain, fog, snow, strong winds, and heavy dust;

Summer temperatures are high, be careful with dry spraying. During construction and drying in narrow spaces, a lot of ventilation is required;

Coating preparation:

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This product is a single component. Before use, stir well with an electric mixer and add an appropriate amount of matching diluent to adjust to the appropriate construction viscosity.

Diluent/cleaning agent: ZX-01 Diluent

Construction:

Construction method: It is recommended to use airless spraying or air spraying. Brushing and rolling coating are only recommended for pre coating, small area painting or repair, and may cause color difference.

Construction parameters:

Construction methods	Unit	High pressure airless spraying	Air spray	Brush coating/roller coating
Spray gun aperture	mm	0.43～0.53	1.5～2.5	——
Spray pressure	kg/cm^2	150～200	3～4	——
Dilution amount	%	5～10	10～20	0～10

Drying/curing time and coating interval:

Substrate surface temperature	5℃	15℃	25℃	35℃
Finger dryness	2h	1h	30min	20min
Hard drying	5h	4h	2h	1h
Minimum coating interval	5h	4h	2h	1h
Maximum coating	No restrictions, before applying the next layer of paint, the surface should be clean, dry, and free of zinc salts and			

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interval	pollutants

Note: The above data were measured under conditions of good ventilation, typical film thickness, and relative humidity of 75%, and are for reference only. The actual drying time and time interval before coating can be long or short, depending on factors such as paint film thickness, ventilation conditions, humidity, lower layer paint, advance loading and unloading requirements, and mechanical strength.

Typical paint matching:

Front matching paint: directly sprayed on steel surfaces with surface treatment reaching Sa2.5 or St3 level or zinc shield cold sprayed zinc surfaces; Hot dip galvanized and hot-dip galvanized surfaces;

Rear matching paint: Under normal circumstances, there is no need for rear painting.

Notes:

Silver rich zinc coating must be sprayed and formed in one go, and repair spraying or repainting should be avoided as much as possible, otherwise the color difference in this area may be caused by inconsistent arrangement of aluminum powder.

Packaging, Storage, and Management:

Packaging specifications: 25kg

Flash point: >27℃

Storage conditions: must be stored in accordance with national regulations. The storage environment should be dry, cool, well ventilated, and avoid heat and ignition sources. The packaging container must be kept sealed.

Storage validity period: The storage validity period under good storage conditions is 2 years.

Health, Safety, and Environmental Protection:

This product contains flammable substances, and the safety of the construction site should comply with relevant national or local government regulations. Please pay attention to the safety labels on the packaging and read the Product Safety Data Sheet (MSDS).

Avoid inhaling solvent vapors and paint mist, avoid paint contact with skin and eyes,

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strictly prohibit swallowing this product, take necessary preventive and protective measures to prevent fire, explosion, and protect the environment. This product should be used in a well ventilated environment. Strong ventilation must be provided for construction in narrow or poorly ventilated areas.

Waste disposal must comply with relevant national or local government regulations.

Declaration:

This product information and data are accumulated based on our testing and practical experience, and can be used as a construction guide. However, since the use of the product is usually outside our control, we only provide quality assurance for the product itself. Our company reserves the right to make modifications based on continuous product improvement without prior notice.

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