ZD6180 Hot dip galvanized special epoxy primer

Product Description:

A two-component anti-corrosion primer composed of epoxy resin, zinc chromate anti rust pigment, solvent, and additive combined with polyamide curing agent, which can be used as a matching primer for hot-dip galvanizing coatings.

Main features:

Good adhesion on hot-dip galvanized workpieces;

Multi purpose epoxy primer, capable of low-temperature curing, fast drying and rapid coating, with unlimited maximum coating interval, can be coated with various high-performance topcoats.

Coatings have excellent rust resistance in various atmospheric environments;

Excellent adhesion to steel, galvanized steel, and old coatings;

Design purpose:

Multi purpose epoxy primer or intermediate paint suitable for steel structures and galvanized steel in various atmospheric environments;

Suitable for new construction or maintenance purposes.

Specification data:

Color: Grey

Gloss: Matt

Volume solid content: 51 ± 3%

Mixed density (kg/L): 1.4 ± 0.1

Typical film thickness and theoretical coating rate:

	Minimum	Typical	Highest
Dry film thickness	30	50	80

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(μm)			
Wet film thickness (μm)	58.8	98	156
Theoretical coating rate (kg/m2)	0.082	0.137	0.219

Actual coating rate: Allow for appropriate loss coefficient

VOC content: ≤ 500g/L

Construction Instructions

Applicable substrate and surface treatment:

New steel: Use appropriate cleaning agents to remove surface grease, and rinse the surface with fresh water for salt and other contaminants. Remove welding slag, grind the weld seam and sharp edges, sand blast clean to Sa2.5 level (ISO8501-1), and achieve a surface roughness of Rz 30 μm~75 μm (moderate roughness in ISO8503-1 comparison plate) for optimal results. It is best to apply primer within 4 hours after sand blast cleaning.

Hot dip galvanized surface: Contaminants (such as grease, oil, residual flux, or marking materials) on the surface of unweathered hot-dip galvanized steel should be removed. The zinc layer can be cleaned by sweeping and spraying non-metallic abrasives. After sweeping and spraying cleaning, the zinc layer should be continuous without mechanical damage. The galvanized surface should be free of adhering impurities that could damage the durability of the anti-corrosion coating (zinc layer and subsequent paint coating). The surface cleaned by sweeping and spraying should have a uniform dull appearance. The recommended surface profile (roughness) is 30-50 microns, with a minimum zinc layer retained above 30 microns. On the surface of weathered hot-dip galvanized steel, zinc corrosion products (white rust) have formed, and foreign pollutants may accumulate. The surface should be treated using appropriate methods based on the scope of pollution and the nature of the pollutants. Oxidation products, certain salts, and other pollutants can be removed by cleaning

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with fresh water containing cleaning agents and grinding with synthetic fiber filaments as abrasives using grinding wheels (or brushes), and then thoroughly cleaned with hot water. Hot water cleaning, high-pressure water cleaning, steam cleaning, sweeping spray treatment, or manual and power tool cleaning methods can also be used.

Repair: Remove grease, salt, dust, and damaged old paint layers

Construction and solidification environmental conditions:

The construction environment temperature should be between 5-38 ℃, the relative humidity of the air should not exceed 85%, 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 large dust;

High temperatures in summer, be careful with dry spraying. During construction in narrow spaces and dry periods, extensive ventilation is required;

The construction environment temperature is -5~5 ℃, and low-temperature curing products or other measures should be taken to ensure the normal curing of the paint film.

Paint preparation:

Mixing: This product is available in two cans, forming a unit for supply. When using, first stir the main paint evenly with an electric mixer, add the curing agent in the specified ratio, stir evenly with an electric mixer, and add an appropriate amount of matching diluent to adjust to the appropriate construction viscosity. Once mixed, it must be used within the specified mixing period.

Diluent/cleaning agent: X-500 epoxy diluent

Mixing ratio (weight ratio): A (main paint): B (curing agent)=25:3

Maturity time: 10 minutes (25 ℃)

Pot life after mixing:

5℃	15℃	25℃	35℃
5h	4.5.h	3.5h	2.5h

Construction:

Construction method: It is recommended to use airless spraying and air spraying.

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Brushing and rolling coating are only recommended for precoating, small area coating or repair.

Construction parameters:

Construction method	Unit	high-pressure airless spraying,	air spraying	brush coating/roller coating
Spray gun aperture	mm	0.43～0.58	1.5～2.5	——
Spray pressure	kg/cm^2	150～200	3～4	——
Dilution amount	%	0～10	10～20	5～10

Drying/curing time and coating interval:

Surface temperature of substrate	5℃	15℃	25℃	35℃
Surface dryness	4h	2h	1h	30min
Actual drying	24h	16h	12h	8h
Shortest coating interval	24h	16h	12h	8h
Longest coating interval	No limitation, but the powdery layer caused by long-term exposure must be thoroughly cleaned before coating.			

Note: The above data were measured under good ventilation conditions, typical film thickness, and relative humidity of 75%, and are for reference only. The actual

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drying time and time interval before coating can be long or short, depending on factors such as film thickness, ventilation conditions, humidity, underlying paint, early loading and unloading requirements, and mechanical strength.

Typical paint matching:

Front matching paint: Hot dip galvanized surface, or directly sprayed on steel surfaces with surface treatment reaching Sa2.5 or St3 level, or on approved workshop primer, zinc rich primer, epoxy primer surfaces.

Rear matching paint: Epoxy paint, polyurethane paint, fluorocarbon paint, etc

Packaging, Storage, and Management:

Packaging specifications: 25kg for component A, 3kg for component B

Flash point:>25 ℃ (A, B, and mixtures)

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

Storage validity period: The storage validity period under good storage conditions is 1 year.

Health, Safety, and Environmental Protection:

This product contains flammable materials, and construction site safety should comply with relevant national or local government regulations. Please pay attention to the safety label 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, strictly prohibit swallowing this product, take necessary precautions 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:

The information and data of this product are accumulated based on our experiments and practical experience, and can be used as a construction guide. However, as the use of the product is usually beyond our control, we only provide a guarantee of

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the quality of the product itself. Our company reserves the right to make modifications based on continuous product improvement without prior notice.

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