

# PRODUCT DATA SHEET



## Concrete Surface Hardener

### INTRODUCTION

Concrete Surface Hardener is a penetrating liquid hardener that can effectively penetrate 3 to 10 millimeters of the cement surface layer. It reacts with the molecular substances inside the concrete to enhance the hardness and strength of the surface layer, helping to solve issues like dusting and sand shedding on the concrete surface. In waterproofing applications, especially on aged roof or floor or wall, this product can be sprayed on the base surface first to improve its hardness, making it easier for subsequent waterproof coatings to adhere.

### APPLICATION

This product can be used for situations such as loose dusting on concrete surfaces, insufficient wall hardness, loose floor coating substrates, and reinforcement of waterproof surfaces. It solves problems such as concrete dusting, easy weathering, poor abrasion resistance, oil seepage, and the formation of cracks.

Note:

Before spraying a large area, you can perform a small sample test. If, during the first coat application, you notice excessive penetration or rapid drying, apply the second coat after 30 minutes. If it still dries too quickly, a third coat may be needed, which indicates severe sand shedding. However, if the first coat penetrates slowly, the surface becomes deeply moist, or there is pooling, one coat is sufficient.

### ADVANTAGES

- Deep Penetration and Curing: Rapidly penetrates into the concrete substrate, fundamentally strengthening the base layer. It effectively addresses issues like sanding, dusting, aging, and loosening, with a penetration depth of several millimeters, ensuring a long-lasting reinforcing effect.
- Enhanced Substrate Strength and Hardness: Significantly increases the surface strength of concrete and cementitious substrates, making them harder and more wear-resistant. This reduces wear, chipping, and cracking caused by external forces or natural weathering,

extending the substrate's service life.

- Convenient Application: Ready to use directly from the container. No mixing or special equipment is required. It can be applied via cold spray, roller, or brush, making the operation simple and straightforward.

- High Bonding Strength: Forms a solid, monolithic bond with the substrate, enhancing the adhesion of subsequent finishing materials (such as tiles, putty, and paint) to the base. This reduces the risk of hollowing and delamination, ensuring construction quality.

- Environmentally Friendly: This product is a water-based, eco-friendly material and is safe to use. Enhanced Water Resistance: Increases water tightness and surface strength.

### PACKAGING & COVERAGE

|                          |                                          |
|--------------------------|------------------------------------------|
| <b>Specification:</b>    | 18kg/pail                                |
| <b>Appearance:</b>       | Single component, white liquid.          |
| <b>Coverage:</b>         | Each pail covering 13~15m <sup>2</sup> . |
| <b>Construction tool</b> | Sprayer (cold apply) or roller.          |
| <b>Shelf Life:</b>       | 1 Year                                   |

### CONSTRUCTION STEPS

#### 1.Surface Preparation

Remove any dust, dirt, or sanded areas from the substrate. The surface should be clean, dry, or slightly damp, but there should be no visible water.

#### 2.Spray the Product

Use a sprayer to evenly apply concrete surface hardener on the substrate in 1~2 coats. When applying the second coat, ensure the first coat is completely dry. This product can fully cure within 24 hours. If you need to apply a waterproof coating in the next step, wait until the product is completely dry before proceeding.

Note:

1. This product can be diluted with water.
2. This product can be applied using a roller.
3. During application, spraying can be adjusted as needed. If the substrate exhibits severe sanding, apply a more generous amount of the product to ensure deep penetration into the substrate, thereby achieving the desired surface-strengthening effect.
4. Do not apply during rainy conditions. The product must

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not come into contact with water before it is completely dry, and rain should be avoided within 24 hours after application.

5.It is recommended to apply the product at temperatures between 5°C and 35°C.

3.If the product comes into contact with skin during application, it can be removed by rinsing the affected area with clean water.

## HANDLING & HEALTH

1.Please wear rubber or plastic gloves to avoid contact with skin.

2.Product is for professional use only.

## STORAGE & SAFETY

1.This product is eco-friendly and non flammable.

2.This product must be stored dry, protected from sun and rain.

3.This product should not be stored at temperatures below 5°C. As a water-based product, it may freeze at low temperatures, which can compromise product quality.

## TECHNICAL DATA

| No. | Test Item                                   |                             | Standard Requirement | Test Result | Individual Results |      |
|-----|---------------------------------------------|-----------------------------|----------------------|-------------|--------------------|------|
| 1   | Shear bond strength (MPa)                   | 7d                          | ≥1.0                 | 1.2         | Pass               |      |
|     |                                             | 14d                         | ≥1.5                 | 1.8         | Pass               |      |
| 2   | tensile bond strength (MPa)                 | Untreated                   | 7d                   | ≥0.4        | 0.6                | Pass |
|     |                                             |                             | 14d                  | ≥0.6        | 0.9                | Pass |
|     |                                             | Water-soaked treatment      |                      |             | 0.7                | Pass |
|     |                                             | heat treatment              |                      | ≥0.5        | 0.8                | Pass |
|     |                                             | freeze-thaw cycle treatment |                      |             | 0.6                | Pass |
|     |                                             | alkali treatment            |                      |             | 0.9                | Pass |
| 3   | pH value                                    |                             | ≥8                   | 9.2         | Pass               |      |
| 4   | 24-hour surface water absorption            |                             | ≤5                   | 4           | Pass               |      |
| 5   | surface water absorption reduction rate (%) |                             | ≥80                  | 82          | Pass               |      |
| 6   | solid content                               |                             | ≥48                  | 49          | Pass               |      |
| 7   | centrifuge stability                        |                             | 3000R/ min.15min     | 3500R       | Pass               |      |

## LEGAL NOTICE

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