

## DESCRIPTION

YHCrystal-2510 is a powdery, rigid waterproof material composed of special cement, quartz sand, and various active chemicals. The active chemical substances in the coating penetrate the concrete through water, catalyzing the formation of water-insoluble crystals within the concrete matrix. This process fills and blocks capillary pores and microcracks, thereby densifying the concrete and significantly enhancing its impermeability. As a result, it effectively prevents water infiltration or seepage in concrete structures or any cementitious substrate under low-pressure conditions.

## WHERE TO USE

It is suitable for permanent anti-seepage and waterproofing of concrete structures including basements, tunnels, sewage treatment pools, water supply pools, sewers, elevator shafts, swimming pools, chemical plants, and other concrete structures.

## CHARACTERISTICS AND PACKAGING

Item	Description
Physical State	Powder
Colour	Grey
Packaging Size	4kg×5 bags per plastic pails

## ADVANTAGES

- Migration of active components and crystalline formation to seal capillary network.
- Easy to apply.
- For positive and negative side waterproofing.
- Can seal hairline cracks.
- Good adhesion to concrete.
- Water vapour permeable.
- Highly resistant to harmful chemical erosion, enhancing the durability of the concrete.
- Environmentally friendly, non-toxic, and harmless, making it safe for use in drinking water projects.
- Self-repairing function, capable of quickly sealing cracks less than 0.4 mm.

## PROPERTIES

Description	Test Methods	Typical Values
Depth of Penetration of Water Under 5 bar for 72hrs for Hardened Concrete Properties	None 2 layers of Admix (powder : water = 1 : 0.37) are applied and curing for 7 days. The coating amount is 1.5 kg/m <sup>2</sup>	30mm DIN 1048 Part 5: 1991 10mm
Compressive strength (28d) / MPa	ASTM C109	≥5
Flexural strength (28d) / MPa	ASTM C348	≥20

Note: The above data were tested under standard conditions (temperature 23 °C ± 2 °C, relative humidity 50% ± 10%).

## APPLICATION INSTRUCTIONS

Two construction methods can be used: Brushing method and dry powder sprinkling method.

### 1. Brushing Method Construction

**Substrate Preparation:** Remove floating slurry, efflorescence, dust, oil stains, and other debris from the substrate and roughen the surface to provide a fully open capillary system for better penetration. Finally, wash thoroughly with a high-pressure water jet. Thoroughly wet the substrate, keeping it moist but free of standing water.

**Mixing:** Use a weight ratio of powder to water of 1: (0.35-0.4). First, pour water into a container, then add the powder. Stir quickly and uniformly with a mechanical mixer. The prepared slurry should be used within 20 minutes, and no additional water should be added during use.

**Brushing Application:** Apply evenly with a hard brush in multiple coats. After each coat, allow it to cure. Once the surface turns white, apply the next coat. If the interval between coats exceeds 12 hours, moisten the surface with a fine spray of water before applying the next coat. Apply 0.7-0.8kg mixed slurry on the substrate for one coat, and at least of 2 coats of 1.5mm dry film thickness should be achieved. The coverage can be 13-14m<sup>2</sup> for one pail of 20kg.

### 2. Dry Powder Sprinkling Method Construction

Evenly sprinkle the powder at a dosage of 1.5 kg/m<sup>2</sup> on the surface of the concrete before it has completely set. Immediately use a wooden float or troweling machine to press the powder into the concrete and smooth the surface.

### 3. Curing

Cure by spraying water mist or covering with wet cloths for no less than 72 hours, with 7 days being ideal.

## TRANSPORTATION AND STORAGE

The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +40 °C. Protect from sunlight, rain, frost and humidity. During storage and transportation, different types of products should be stacked separately and not mixed. Under normal transportation and storage conditions, the shelf life is 12 months from the date of production.

## PRECAUTION

- Construction is not permitted in temperatures below 5°C, or during rain or snow.
- Protect the applied area from exposure to sunlight, rain, strong winds and temperatures below 5°C within 48 hours after application.
- Do not prepare an excessive amount of material at once; it must be used within 20 minutes. Do not add water or additional material during use.
- Apply in multiple coats: applying too much in one coat can make curing difficult, while applying too little can cause rapid dehydration and lead to powdering.
- Begin mist curing 6 hours after application to ensure proper hydration and curing of the material.

## HEALTH AND SAFETY

Please read the safety manual carefully, our security experts will be pleased to give you advises about safety, health and environmental issues.

#### DISCLAIMER

*The above information and recommendations which are based on our experience are as for reference, they can't replace the customers' own experimental results. Since our company, our representatives or distributors can't control the transportation, storage, handling and use conditions of the products, the economic disputes and the quality accident caused by improper use can't be attributed to our suggest. In any application, the customer shall be responsible to comply with obligations of third-party intellectual property rights. Without our consent, anyone shall not provide technical information to third parties.*