

**Product Data Sheet**

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**CN2000®B (CCCW)**

ISO 9001-2015 — GB/T19001-2015  
CERTIFIED



**Manufacturer:**

ZHONGHE WATERPROOF MATERIAL CO. LTD.  
China

**Exclusive International Distributor:**

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**Cementitious Capillary Crystalline Waterproof Material**

**Description:**

The waterproof material **CN2000®B** has an Eka-molecular sieve structure with a permeation crystalline effect. The applied waterproof layer has breathing, waterproofing and anti-corrosion abilities.

**CN2000®B** is cementitious and will firmly adhere to concrete and becomes an integral part of the structure. **CN2000®B** contains active substances and under its catalysis, hydration is promoted, and a new insoluble crystalline structure is produced, which blocks the passage of water and enhances compressive strength, bending strength, and the impervious pressure of the base structure.

Also, when new cracks occur (to a width of 0.4mm), in the presence of water, the newly formed crystalline can realize self-healing capabilities.

**CN2000®B** effectively protects reinforced concrete structures from water and dissolved corrosive materials and enhances their durability.

**Applications:**

**CN2000®B** can be utilized in the following projects for waterproof and anti-corrosion in structurally sound concrete structures - new or old, either at the water side or the air side of a concrete structure:

- ▶ Highway Overpass Structures
- ▶ Bridges and Piers
- ▶ Underground and Tunnels
- ▶ Mining
- ▶ Potable Water Facilities
- ▶ Sewage Treatment and Transport
- ▶ Hydro Electric Facilities
- ▶ Seaports and Seaways
- ▶ Swimming Pools
- ▶ Ponds and Waterfalls
- ▶ National Defense Applications
- ▶ Storm Water Canals
- ▶ Underground Parking Garages
- ▶ Elevator Pits

#### Advantages:

All technical performances of **CN2000®B** achieve or exceed national and industrial standards.

- ▶ **CN2000®B** is water-soluble. Application is executed at normal temperatures. Use is convenient. It can be applied to all kinds of aboveground and underground projects.
- ▶ Coating varies with the shape of the concrete substrate surface without joints. **CN2000®B** can be applied by trowel, brush coating or spray coating.
- ▶ **CN2000®B** has the capability of self-healing.
- ▶ **CN2000®B** is non-toxic, odorless and flavourless; it's safe to the human body and is non-polluting to the environment.
- ▶ **CN2000®B** is an **Environmentally Friendly Product**.
- ▶ **CN2000®B** increases concretes' compressive and bending strength and has a high impervious pressure.
- ▶ **CN2000®B** has superior resistance to the effects of extreme temperature variations and is resistant to ultraviolet radiation, oxidation, and carbonation.
- ▶ The **CN2000®B** coating is thin and the application procedure is simple and quick. The next construction procedure can be initiated after 24 hours of curing.
- ▶ **CN2000®B** freeze-thaw resistance and anti-corrosion ability are superior.
- ▶ **CN2000®B** can be utilized in any project exposed to water, seawater and/or soil with high salinity.

#### Packaging & Storage:

- ▶ 25kg Sealed Plastic Pail.
- ▶ When stored in a dry place between -30°C to 40°C, in the original packaging unopened and undamaged, the shelf life of **CN2000®B** is 2 years.

#### How to Use

##### Coverage Area:

For normal surface conditions 25 kg (55lb) bucket of **CN2000®B** will cover approximately 14m<sup>2</sup> (150ft<sup>2</sup>) one coat. The coverage rate for each coat is approximately 1-2 kg/m<sup>2</sup>.

##### Remarks:

All applications require a minimum of 2 coats.

Each coat approximately .5mm - 1mm (.020" - .04") thick.

For proper coverage – 1<sup>st</sup> coat - left to right - 2<sup>nd</sup> coat from top to bottom.

**Note:** Spray coating is the most economical coating method. Contact manufacturer for details.

#### Surface Preparation:

- ▶ Allow at least 7 days or more curing of the concrete of last pour before coating.
- ▶ The substrate surface must be solid and clean. Seepage, dust, oil stains and any dirt should be cleared and removed.
- ▶ If the substrate surface is smooth due to forms, it must be roughed by way of bushing tool, sand/water blasting to create an open pore structure.
- ▶ The substrate surface must be well saturated with water during application but no puddling.

- ▶ The loose honeycomb--type concretes, hollows, joint seams and holes left over by pull rods and scaffolds must be eliminated beforehand and filled with CN2000®B MORTAR, in order to obtain the best application surface.
- ▶ The substrate surface must be well saturated with water, without puddling.
- ▶ Direct sunlight, rain or frost should be avoided during the curing process.

**For a reservoir, water can be stored only after the coating has cured for at least 7 days.**

#### Mixing:

Materials' ratio (by weight):

Trowel coating: **CN2000®B**: water = 1: 0.35 ± 0.05

Brush coating: **CN2000®B**: water = 1: 0.4 ± 0.05

Spray coating: **CN2000®B**: water = 1: 0.5 ± 0.05

Mix **CN2000®B** with water. (Water must be in mixing container first) Mix only as much material as can be used up within 20 to 30 minutes and stir the mixture evenly, leaving no visible powders. The stirring time generally is 3 to 5 minutes by mechanical means. (i.e. electric drill with paddle)

Once the **CN2000®B** mixture is completed, you must not add water to thin the remaining mixture for reuse. It must be disposed.

#### Applying:

##### Trowel coating:

Using a trowel or squeegee, apply evenly mixed **CN2000®B** to the working surface. First apply into the corners, sides and shaped areas. Then apply on the level surfaces. Each coating should be applied consistently and in one direction. Successive coatings should be applied perpendicular to the last coat. The thickness of joining layers should be even. Allow preceding coating to set (Not sticky to the touch) before applying the next coating. Apply 2 to 3 coatings to reach the total required thickness.

##### Brush coating:

Except for the materials ratio (weight), the procedures are the same as with trowel coating.

##### Spray coating:

Except for the materials ratio and using special spray equipment, the procedures are the same as with trowel coating.

#### Curing:

A coating of **CN2000®C-D** must be applied on top of the **CN2000®B** coating after initial set, to allow for curing in areas of uncontrolled water. The **CN2000®C-D** function in this instance is to maintain proper hydration for curing.

Under certain conditions, after the **CN2000®B** has initially set – not tacky to the touch and the color has not changed to white, immediately saturate the **CN2000®B** coating and cover the surface with a light weight plastic film or intermittently spray the coating with water to keep the **CN2000®B** coating damp for 24 hours to allow for proper curing.

**Typical Data:**

Aggregate state: Powder  
Color: Off--white  
Specific Gravity: Approx. 1.3

**Precautions:**

- ▶ The best temperature for application is 20°C ± 10°C. Avoid application under 5°C or above 35°C, or in hot, dry environments.
- ▶ Do not apply **CN2000®B** at or below freezing temperatures.
- ▶ The waterproof coating must be cured for 24 hrs before the next process to avoid damaging the coating.
- ▶ If vehicles and pedestrians pass over the waterproof coating, protective covers are required. (Pavement, tiling etc.)
- ▶ **CN2000®B** is a coating material. It can't be used as an admixture to concrete or plaster.

**First Aid:**

- ▶ **CN2000®B** is cementitious. Avoid contact with skin and eyes. In case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice if necessary.
- ▶ Workers should wear masks, goggles and gloves while mixing and stirring the product.
- ▶ **Keep out of reach of children.**

**Disposal:**

**CN2000®B** is cementitious and should be disposed of as required by Federal, State, Provincial and Municipal laws and By--Laws.  
**CN2000®B** is an **Environmentally Friendly Product**.

**Warranty:**

**ZHONGHE Waterproof Material Co., Ltd.** warrants that the products manufactured by it comply with the national standard **GB18445--2001 Cementitious Capillary Crystalline Waterproofing Materials**, shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion.

Should any of the products be proven defective, the liability to **ZHONGHE Waterproof Material Co., Ltd.** shall be limited to replacement of the material proven to be defective. **ZHONGHE Waterproof Material Co., Ltd.** shall in no case be liable for incidental or consequential damages.

If problems are caused due to violation of the use regulations, **ZHONGHE Waterproof Material Co., Ltd.** will not be responsible.