
Polymer Cement Crystalline Waterproof Coating

Sinomaco Polymer Cement based powder crystalline waterproof coating (CCCW) is a powder crystalline waterproof coating in gray powdered inorganic material form formulated from ordinary portland cement, aggregates and a variety of special active chemical substances. Its waterproof principle is a unique active chemical substance. Using the inherent chemical properties and porosity of concrete, water is used as a carrier, and water reacts with the pores of the structure and reacts to generate insoluble crystals such as ettringite, which are active chemical substances and components that are not fully hydrated, then hydration occurs again, and cementation is promoted to form crystals. The formed crystals are filled and blocked in the concrete to act as pores, so that the crystal and the concrete form as a whole, and water cannot enter the concrete to achieve the purpose of waterproofing.

Product Feature

1. A permanent waterproof choice. This coating is a kind of inorganic salt cement-based mixed material. After construction, the cured material of the waterproof material layer is formed with the concrete structure to achieve the synchronous life.
2. Strong secondary permeation resistance and reinforcing effect.
3. It can make fine cracks heal under the action of permeation and crystallization, improving the ability of seepage resistance.
4. Non-toxic and harmless. This coating is an environmental friendly product and can be used in construction waterproofing projects such as water reservoirs and food processing plants.
5. Good corrosion resistance, can be used in sewage treatment plant and other waterproofing works to prevent steel corrosion. It is also with root puncture resistance, the finished product is easy to be protected, even if the surface layer falls off, it will not affect the waterproof effect.
6. Simple and efficient. Easy to use and in high efficiency to save time and labor.

Application Scope

1. Widely used in industrial and constructions like tunnels, dams, reservoirs, power plants, nuclear power plants, subways, waste water treatment tanks, etc;
2. Also in civil buildings basement, roofing, toilet, kitchen, parking lot and etc.
3. Maintenance of plugging the about defects of concrete building structure.

Construction Advices

1. Do not construct under rainy, foggy, strong wind or sandstorm weather and temperature below 0°C.
2. Do not use unclean water to maintain the base.

3. Work with the required amount of usage and mix the materials and finish it at one time. The additional water & powder added are prohibited which may cause the uneven mix and result in coating bubbles and fall off easily.

4. If the construction site needs to be backfilled, it must be backfilled with wet soil after 36 hours instead of dry soil with more than 7 days to prevent dry soil to draw off the coating's moisture.

Transportation & storage

1. Seal and package the product in plastic drums or iron drums with inner packaging in plastic bags, and place them in clean, ventilated, dry and non-sunlit private warehouse. Normal storage period is 6 months, after the storage period, if the re-examination is qualified it can still be used.

2. Make sure the packaging is intact and free from collision, extrusion, rain, and freezing.

Performance Test Report

Technical Data Sheet (TDS)			
S/N	Item		Index
1	Appearance		Uniform, no agglomeration
2	Water content		≤ 1.5%
3	Fineness, 0.63mm sieve		≤ 5%
4	Chloride ion content		≤ 0.1%
5	Construction	Add water after stirring	Smeared without hindrance
		20min	Smeared without hindrance
6	Flexural strength / 28d		≥ 2.8 MPa
7	Compressive strength /28d		≥ 15 MPa
8	Wet base adhesive strength /28d		≥ 1 MPa
9	Mortar impermeability	Impermeability pressure of coated mortar	≥ 250%
		Impermeability pressure after removing the coating mortar ^a /MPa,28d	≥ 175%
10	Concrete impermeability	Impervious pressure ratio with coating layer/ 28d	≥ 250%
		Impervious pressure ratio without coating layer/ 28d	≥ 175%
		Second test of impermeability pressure with coated concrete/56d	≥ 0.8 ^a /MPa

Product link : <https://www.sinomaco.com/?p=1253>