

NANOCRYST PX100

Crystalline Penetrating Waterproofing Compound

Product description

Nanocryst PX100 is a crystalline waterproofing product that penetrates deep into the concrete, reacts with free lime and water, forming insoluble complex crystalline fibers that seal capillaries and cracks in concrete.

Nanocryst PX100 seals shrinkage cracks up to 0.4mm

Application

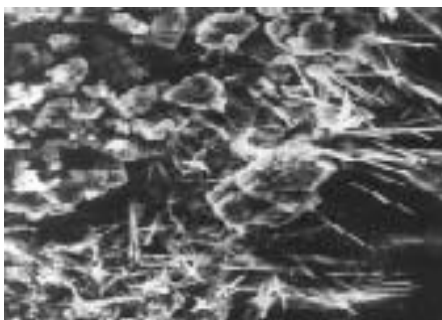
- Basement foundations and load-bearing walls
- Underpasses, vaults, elevator shafts
- Water tanks (drinking water), wastewater treatment tanks
- Water pipes, manholes, aquaculture tanks
- Underground structures ...

Advantage

- Non-toxic, odorless, environmentally friendly
- Non-toxic to drinking water, Chloride-free
- Easy to use, just mix with water
- Can be applied to live concrete after demoulding
- Protects concrete against water, salt water, wastewater and water pressure from the ground
- Protects concrete in depth even when the coating is damaged
- Suitable for positive and negative surfaces
- Long-lasting effect
- Can increase the strength of concrete
- Resistant to corrosive chemicals and freeze-thaw cycles.

Technical specification

Appearance	Powder
Color after mix	Dark grey
Packaging	25 kgs per bag
Expiry date	9 months
Storage	Store in a cool, dry place, away from moisture



Crystals begin to grow in the concrete immediately after placement.



Thrives in 28 days to seal capillaries and pores in concrete.



USING INSTRUCTION

Surface preparation

- Clean off all grease, concrete curing agents, cement mortar, concrete debris and other contaminants.
- The best cleaning method for large surfaces is with a water pressure washer. Large cracks and voids in the concrete must be filled with mortar before application. Create a clean, flat and hard concrete surface. Before application, dampen the entire surface but do not allow standing water.

Mixing

- Use a hand mixer with a suitable mixing paddle at a speed of about 400 to 600 rpm.
- Pour the measured amount of water into a clean container. Slowly pour in the powder and stir until it dissolves without lumps. Continue adding the remaining water and mixing until it is homogeneous (mix for about 3 to 5 minutes). Let the mixture rest for about 1 minute, mix lightly again and then apply.

Construction

- **Apply by sprayer:**

- Water quantity: 8 liters of water for 25kg bag
- Material consumption: 2 kgs per m²
Pour the premixed **Nanocryst PX100** mixture into the sprayer, adjust the pressure and spray head to suit the construction dosage. Spray onto the concrete while it is still damp.



- **Apply by brush:**

- Water quantity: 6-7 liters of water for 25kg bag
- Material consumption: 2 kgs per m²
While the surface is still damp, apply the first layer of **Nanocryst PX100** evenly with a brush. Wait for the surface to dry and no longer stick to your hands for about 6 hours, then apply the second layer.



- **Apply by trowel:**

- Water quantity: 4-5 liters of water for 25kg bag
- Material consumption: 2 kgs per m²
While the surface is still damp, apply the first layer of **Nanocryst PX100** with a plastic or steel trowel. Wait for the surface to dry for about 6 hours, then apply the second layer.



- **Apply by dry spreading:**

- Material consumption: 2 kgs per m²
Spray water to moisten the floor surface before construction. Spread **Nanocryst PX100** onto the surface of the product according to the construction rate; then pour fresh concrete onto the **Nanocryst PX100** layer, the water in the concrete will disperse the **Nanocryst PX100** powder and penetrate into the concrete to form a complete waterproof layer for the concrete.



Note

- Wear a mask, goggles and protective clothing when working
- Clean all tools immediately after use with clean water.

Physical parameter

Testing criteria		Standard result	Testing method
Stability after mixing		No stratification	
Setting time	Start setting	> 40 mins	ASTM C 953 – 10
	End setting	< 20 hrs	
Flexural strength	7 days	> 2.90 MPa	ASTM C 348 – 14
	28 days	> 3.60 MPa	
Compressive strength	7 days	>13.0 MPa	ASTM C 349 – 14
	28 days	>19.0 MPa	
Adhesion strength under normal conditions	28 days	≥ 0.5 MPa	BS EN 14891 – 2012
Adhesion strength after immersion in water	28 days	≥ 0.5 MPa	
<u>Positive waterproofing:</u> Water permeability under hydrostatic pressure of 1.5 bar for 7 days	28 days of water curing	Impermeable	
<u>Reverse waterproofing:</u> Spray water pressure at 0,7 kgf per cm ² 72 hours continuously with flow of 150 liters per hour		1. No seepage on the back of the masonry 2. Seepage begins to dry after 72 hours	ASTM E 514 – 04

For any information related to the product, please contact adchem's sales or the technical department.



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