



REACTIVE CRYSTALLINE WATERPROOFING CONCRETE ADMIXTURE

Description: WATERPROOFING is a reactive crystalline waterproofing admixture designed to reduce water permeability in concrete. The product reacts with free lime and moisture in the cement matrix to form insoluble crystalline structures that block capillary pores and micro-voids within the concrete. It provides integral waterproofing and improves resistance to hydrostatic pressure.

Technical Properties:

Chemical Content	Crystalline silicate
Appearance	Liquid
Color	Light yellow
pH	12±1
Density (20 °C)	1.25 ± 0,02 g/cm ³
Chloride Content (%)	< 0.1
Alkaline Content (%)	< 5
Freezing	-10 °C

Advantage:

- Integral waterproofing within the concrete matrix.
- Reduces capillary water absorption and permeability.
- Improves resistance to hydrostatic pressure (positive and negative side).
- Enhances long-term durability of concrete structures.
- Supports reduction of chloride ingress.
- Contributes to corrosion protection of reinforcement.
- Compatible with most concrete admixtures.
- Does not adversely affect compressive strength.
- Easy to dose and apply in ready-mix and precast production.
- Permanent crystalline action activated in the presence of moisture.
- Provides internal self-sealing capability for microcracks (up to ~0.3 mm) (depending on concrete quality and curing conditions).
- Improves service life of concrete structures.

Area of Use:

- Foundations and basements.
- Water tanks and reservoirs.
- Retaining walls.
- Sewage and wastewater structures.
- Tunnels.
- Precast concrete elements.
- Elevator pits.



Dosage: Recommended dosage: 0.8 – 1.2 % by weight of cement.

Higher dosages may be used depending on project requirements and testing. Always perform trial mixes before large-scale application. When required, the Polystar Co. Technical Support Unit should be consulted.

Compatibility: WATERPROOFING admixture is compatible with other POLYSTAR plasticizer admixtures used in the same concrete mix.

Standards: EN 934-2 Table 9 - ASTM C 494 Type S

Method of Application:

Ready-Mix Concrete;

- Add the product to the mixing water or directly into the truck mixer.
- Mix for a minimum of 3–5 minutes after addition to ensure uniform dispersion.
- Adjust superplasticizer dosage if required to maintain target slump.
- Maintain proper curing practices after placement.

Precast Concrete;

- Add to the mixer together with the mixing water.
- Ensure full dispersion before casting.
- Compatible with steam curing systems.
- Perform trial mixes before large-scale production.

Precautions in Application:

- Product is alkaline. Avoid contact with skin and eyes.
- Do not exceed recommended dosage without prior testing.
- Always perform trial mixes before large-scale application.
- Proper concrete compaction and curing are essential for optimal waterproofing performance.
- Not a substitute for structural crack control.
- Not designed to seal active water leaks.
- Performance depends on concrete quality and water/cement ratio.
- Protect fresh concrete from rapid drying and extreme temperatures.
- Do not use in frozen concrete or when ambient temperature is below +5°C without proper precautions.
- Overdosing may affect setting time and workability.
- Compatibility testing is recommended when used with other admixtures.
- Not intended to compensate for poor concrete mix design.
- Ensure adequate curing to activate crystalline reaction.
- Not a crack repair product.

Cleaning: WATERPROOFING admixture can be washed with fresh cold water and should not be allowed enter sewers or open bodies of water.

Packing: 30 kg plastic drum ,250 kg drum ,1000 kg container Bulk

Storage and Shelf Life: Must be stored at temperatures between +5°C and +45°C. Under proper storing conditions, the product's shelf life is 12 months from production date if kept in original packaging unopened and undamaged. Packaged products must be shaken before use.

Security Information: Use protective clothes, gloves, glasses and mask compatible with Health and Safety regulations during the application. It should not contact skin and eyes. In case it contacts to skin and eyes, rinse it with water and if swallowed ask for medical help. Food and beverage should not be allowed in the application area. It should be stored at the reach out of the children. The Material Safety Data Sheet (MSDS) should be read for detailed information.

