

MONOCAP WP

Powder waterproofing crystalline admixture

Description

MONOCAP WP(POWDER) is powder waterproofing admixture formulated from selected organic salts and very fine treated silica specially designed to reduce the permeability in all cement based mortars, screeds and concrete. **MONOCAP WP** blocks the natural pores in the mix and imparts the hydrophobic properties which reduce moisture permeability.

Unique properties of **MONOCAP WP** active organic chemicals reacts with the moisture in fresh concrete and generates non soluble and block the pores during active hydration of cement particle. The concrete admixed with **MONOCAP WP** become permanently sealed against water penetration from all sides, which also increases the ultimate strength of concrete.

The advanced waterproofing properties of **MONOCAP WP** also protect reinforcement against corrosion, harsh environment and waterborne chemicals like sulfates, acids and chlorides, increasing the durability and life span of concrete.

Applications

MONOCAP WP is a waterproofing admixture for use in all cement based mortars, screeds and concrete.

it is recommended to be used for:

- Reservoirs.
- Sewage.
- Underground vaults.
- Swimming pools.
- Basements.
- Traffic tunnels.
- Bridges.
- Highway infrastructure.
- Cast-in-Place concrete.
- Water treatment plants
- Foundations.
- Parking structures.
- Elevator pits.
- Below grade pipelines.
- Dams.
- Precast concrete.
- Shotcrete.

Technical Properties

Colour: White to beige powder

Bulk density: 0.60 ± 0.05 g/cm³

Chloride content EN 934-2: Nil

Air entrainment: Typically less than 2% additional air is entrained above control mix at normal dosages

Permeability reduction IS 2645: At least 70% 0 g/ltr

VOC: 0 g/ltr

Improvement may vary depending on water-to-cement ratio (W/C) and cement content in the mix.

Advantages

Improves durability by minimizing penetration of moisture and water based chemicals.

- No additional water into dry or semi-dry mixes.
- Reduces efflorescence and pigment leaching from cement mortars.
- Chloride free.
- Added into the concrete at time of batching.
- Resists hydrostatic pressure from all direction, allow concrete to breathe.
- Can heal static cracks up to 0.5 mm.
- Active material for the entire life of concrete.
- Permanently waterproofs concrete.
- Protection against corrosion.
- Non toxic. • Zero VOC content.
- Saves construction time and cost by eliminating the need for external membrane as well as reduced labour number.
- Enhances performance of concrete by reducing permeability by at least 70%.
- Enhances concrete hydrophobicity and repelecy properties.
- No special addition precautions.
- Increases ultimate strength of concrete.

Compatibility

MONOCAP WP can be used with all types of Portland cement and cement replacement materials.

MONOCAP WP is compatible with other STARKE admixtures used in the same concrete mix.

If more than one type of admixture is to be used in concrete mix, they must be dispensed to the concrete separately.

Method of Use

MONOCAP WP should be added to the mix at the same time as the cement, sand and other aggregates. Do not pre-dissolve in the mixing water.

Dosage

The guidance dosage of **MONOCAP WP** ranges from 0.8 - 2 kg per 100 kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Representative trials should be conducted to determine the optimum dosage of **MONOCAP WP** to meet the performance requirements by using the materials and conditions on actual use.

POINTS TO BE CONSIDERED IN WATERPROOF CONCRETE

- . Lower water to cement ratio gives lower permeability concrete.
- . Good concrete placing and compaction are very important to produce waterproof concrete.
- . Fresh concrete should be protected against rapid drying and cured properly.
- . Cold joints must be avoided.

Cleaning

MONOCAP WP can be removed immediately by brush. If the spillage is mixed with water, attention should be taken not to leave slippery film.

Packaging

MONOCAP WP is available in 5, 10 and 25 kg bags.

Effects of Over Dosage

MONOCAP WP over dosage will increase air entrainment which may cause a reduction in the compressive strength.

Storage

MONOCAP WP has a shelf life of 12 months from date of manufacture if stored at temperatures between 2°C and 50°C.e.

If these conditions are exceeded, STARKE Technical Department should be contacted for advice.

Cautions

Health and Safety

MONOCAP WP is not classified as a hazardous material. **MONOCAP WP** should not come into contact with skin and eyes. In case of contact with eyes, immediately flush with plenty of water and seek medical attention.

For further information, refer to the Material Safety Data Sheet.

Fire

MONOCAP WP is nonflammable.

More from starke construction chemicals A wide range of construction chemical products are manufactured by STARKE which include:

Concrete admixtures.

Surface treatments

Grouts and anchors.

Concrete repair.

Flooring Coating

Sealants.

Waterproofing.

Adhesives.



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