

MONOSET FS

Alkali free sprayed concrete accelerator, with minimum rebound characteristics

Description

MONOSET FS is a set accelerating, alkaline and chloride free admixture specially designed to achieve rapid setting with minimum rebound for applications of sprayed concrete, shotcrete and gunite processes.

Concrete however well made is to some extent porous and water must be prevented from penetrating through capillary pores. The presence of water in hardened concrete can cause corrosion of reinforcement which is made severe by freezing and thawing of concrete containing absorbed moisture. Further deterioration can occur if the water penetrating the concrete contains dissolved aggressive salts.

Advantages

Rapid set allows thick sections to be built-up.

- Alkaline free.
- Minimum rebound.
- Single pass spraying for thick layers.
- Excellent for overhead applications.
- Can be used for 'wet and dry' processes.

Compatibility

MONOSET FS can be used with all types of Portland cement and cement replacement materials.

MONOSET FS is compatible with other STARKE admixtures when used in the same concrete mix.

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

Standards

MONOSET FS complies with ASTM C1141, Type I and II, Grade 9.

Method of Use

Stiffening occurs approximately after 10 seconds of mixing concrete with **MONOSET FS**. As with all other processes and products, the rapid initial acceleration of the cement hydration process, will affect the ultimate concrete strength.

Dosage

The optimum dosage for **MONOSET FS** to meet specific requirements should be determined by trials using the materials and conditions that will be experienced in use.

This can best determine the optimum dosage to be used and will ensure most cost effective site application.

Technical Properties 25°C:

Colour: Pale straw liquid

Specific gravity: 1.40 ± 0.1

pH: 2 - 5

Viscosity: 400 ± 100 mPa.s (cp)

ASTM D1084

Chloride content: < 0.1%

Setting time* @ EN 196-3

8% dosage range:

Initial setting time: ≤ 6 min

Final setting time : ≤ 9 min

The above data was developed under controlled laboratory conditions. Properties in the field may vary. Expect reasonable variations from these results, depending on cement type, jobsite or test conditions

The typical dosage range for **MONOSET FS** is 7.0 - 10.0 kg per 100 kg of cementitious and cement replacement material, including PFA, GGBFS or microsilica, which can be used as a starting point for the trials.

Use at Other Dosages

Dosages outside the typical range quoted above may be used if necessary to meet particular mix requirements.

Compliance with requirements must be assessed through trial mixes. For further information and support, contact STARKE Technical Staff.

Effects of Over Dosage

An overdose of the intended amount of **MONOSET FS** will result in reduced setting of the mix and will result in some loss of strength.

Dispensing and Mixing

MONOSET FS is normally introduced directly after the air ring in the spray nozzle. In order to obtain a consistent supply of admixture at the nozzle the delivery system should have a 600 KPa pressure pot, and a 20 mm inside diameter pressure delivery hose controlled by a pressure restrictor and tap.

With 'wet process' the use of a water reducing admixture to reduce the water content while increasing workability of the mix is recommended.

Cleaning

MONOSET FS can be washed with fresh cold water.

Packaging

MONOSET FS is available in 275 kg plastic drums supply

Storage

MONOSET FS has a shelf life of 6 months from date of manufacture if stored in a dry area out of direct sunlight and exposure to frost in original unopened container at temperatures between 5°C and 35°C.

Material needs good mixing before usage, and for bulk storage, site agitation or recycling pumps is a must. If these conditions are exceeded, STARKE Technical Department should be contacted for advice.

Cautions

Health and Safety

MONOSET FS is not classified as hazardous material. **MONOSET FS** should not come into contact with skin and eyes. Goggles and gloves should be used.

In case of contact with eyes wash immediately with plenty of water and seek medical advice promptly. For further information refer to the Material Safety Data Sheet.

Fire

MONOSET FS 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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