

MONOCAST 180 RT

Retarding and water reducing admixture

Description

MONOCAST 180 RT is formulated from selected polymers specially designed to enable the water content of the concrete to perform more effectively. This effect can be used to improve workability, to increase ultimate strengths or to facilitate a reduction in the cement content while sustaining and improving mix properties.

MONOCAST 180 RT has retarding properties; this effect can be used in concrete where high cement content or high temperatures are involved, or where extended setting time is required..

Applications

Hot weather concreting.

- Where workability retention or retardation are required.
- For Roller Compacted Concrete (RCC).

Advantages

- Improved workability reduces placing and compaction problems.
- Workability retention for long distance concreting.
- Cold joints can be avoided by extending initial and final concrete setting time.
- Cement saving without affecting strength.
- More durable concrete as a result of reduction in permeability and lower water to cement ratio.

Compatibility

MONOCAST 180 RT can be used with all types of Portland cement and cement replacement materials.

MONOCAST 180 RT 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.

Standards

MONOCAST 180 RT complies with ASTM C494, Type D, IS 9103:99 and BS 5075, Part 1:1982.

Technical Properties

Colour: Straw liquid

Specific gravity: 1.08 ± 0.02 @ 27°C

Chloride content: Nil

BS 5075

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

Method of Use

MONOCAST 180 RT should be added to the concrete with the mixing water to achieve optimum performance.

An automatic dispenser should be used to dispense the correct quantity of **MONOCAST 180 RT** to the concrete mix.

Dosage

The guidance dosage of **MONOCAST 180 RT** 0.10 - 0.55 litre 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 Flocrete R666 to meet the performance requirements by using the materials and conditions in actual use.

Effects of Over Dosage

Over dosing of **MONOCAST 180 RT** will cause the following:

- Significant increase in retardation.
- Increase in workability.
- Ultimate concrete strength will not be adversely affected and will generally be increased provided that proper concrete curing is maintained.

Setting Time

Although the setting time is dependent on the dosage of **MONOCAST 180 RT**, the following factors should be considered:

- i. Retardation is increased with a lower level of tri-calcium aluminate in the cement.
- ii. Lower temperatures will delay the setting time.
- ii. SRC cement gives higher retardation level than ordinary cement.
- iv. Using more than one type of admixture in the same concrete mix could affect the setting time.
- v. Retardation level is increased when cement replacement materials are used in the concrete mix.

Cleaning

MONOCAST 180 RT can be washed with fresh cold water.

Packaging

MONOCAST 180 RT is available in 225 kg drums and 1000 litre bulks supply.

Storage

MONOCAST 180 RT has a shelf life of 12 months from date of manufacture if stored at temperatures between 2°C and 50°C.

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

Cautions

Health and Safety

MONOCAST 180 RT is not classified as hazardous material. **MONOCAST 180 RT** should not come into contact with skin and eyes.

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

MONOCAST 180 RT is nonflammable.

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