

MONOCAST 180 HR



Modified polycarboxylic based super plasticizer for high strength and long slump retention

DESCRIPTION

MONOCAST 180 HR is a high concrete super plasticiser polycarboxylic ether. Having unique carboxylic ether polymers with long lateral chains It is an effective cement dispersant and high range water reducer as compared to conventional superplasticisers

This effect can be used in high strength concrete and flowable concrete mixes, to achieve highest concrete durability and performance.

USES

Used for ready-mix concrete, self compacting concrete, under water concrete, precast concrete, concrete containing silica fume, GGBS, PFA with extremely low w/c ratio etc. it is specially designed to achieve improved concrete properties in plastic and hardened state. It is especially useful for ultra high strength concrete, high fines concrete, hot weather concrete, etc.

APPLICATIONS

- High strength and high performance concrete.
- Structures with congested reinforcement.
- Pre-cast concrete.
- Improved cohesion allow for use in mass concrete pours and piling.
- Self compacting concrete.

ADVANTAGES

- Optimises cement utilization.
- High density and impermeable concrete through very high water reduction.
- Improves shrinkage and creep behaviors.
- Minimises segregation and bleeding problems by improving cohesion.
- Higher early and ultimate compressive strengths.
- Increases durability and resistance to aggressive reduced conditions thorough atmospheric permeability.

COMPATIBILITY

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

MONOCAST 180 HR should not be used in conjunction with other admixtures unless STARKE technical department approval is obtained.

STANDARDS

MONOCAST 180 HR complies with IS 9103:1999 and EN 934-2 & ASTM C494 Type F and G.

TECHNICAL PROPERTIES @ 25°C:

PROPERTY	TEST METHOD	VALUE
Component	-	Single
Form	-	liquid
Colour	-	light yellowish
Freezing point		≈ -1°C
Specific gravity	ASTMC494	1.06 ± 0.02
Air entrainment	ASTM C231	Typically less than 2% additional air is entrained above control mix at normal dosages

DOSAGE

The guidance dosage of **MONOCAST 180 HR** is 0.4 - 2.2 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 **MONOCAST 180 HR** to meet the performance requirements by using the materials and conditions in actual use.

EFFECTS OF OVER DOSAGE

Over dosing of **Monocast 180HR** 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.

CLEANING

MONOCAST 180 HR can be washed with fresh cold water.

PACKAGING

MONOCAST 180 HR is available in 20 kg pails, 225 kg drums and 1000 litre bulks supply.

STORAGE

MONOCAST 180 HR 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 HR is not classified as hazardous material.

MONOCAST 180 HR 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 HR is nonflammable.

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Important note :

Starke range products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Starke endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation, opinion or information given by it.

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