

MasterRoc® SA 190

Alkali-Free, Liquid High-Performance Set Accelerator for Sprayed Concrete

Description

MasterRoc SA 190 admixture is a high-performance alkali-free shotcrete accelerator for use in the wet-mix spraying process.

It is a liquid additive whose dosage can be varied to the desired setting and hardening times.

Applications

Recommended for use in:

- Temporary and permanent rock support in tunnels
- Rock support in mining
- In poor ground conditions
- Slope stabilization
- Also suitable for acceleration of cementitious grouts, such as that used in TBM tunnel linings, cement grout injection and foam concrete backfill operations.
- Rock support
- Tunnels
- Wet shotcrete mixtures

Features

- Ability to construct thick sprayed concrete linings via layered application during one construction sequence
- Good early strength development and continual early-age strength development
- Good long-term strength and durability

Benefits

- Easy handling, as well as easy and efficient addition to the sprayed concrete
- Little dust and, therefore, a better working environment and improved worker safety
- Reduces required handling precautions, improving economics

Performance Characteristics

Technical Data

Form	Suspension
Color	Beige
Density*	1.38 ± 0.03 g/mL (Nominal)
pH (1:1 water solution)	2.5 ± 0.5
Viscosity*(Brookefield)	150 ± 50 cP (mPa.s)
Thermal stability	41 °F to 95 °F (5 °C to 35 °C)
Chloride content	<0.1%
Na ₂ O _e , by mass	<1%

*at 68 °F (20 °C)

Guidelines for Use

Dosage: The dosage of MasterRoc SA 190 admixture depends on the temperature of concrete, air and substrate. Another important factor influencing the dosage is the reactivity of the cement. Depending on required setting time and early strength requirements, the dosage of MasterRoc SA 190 admixture normally ranges from 3 to 10% of the binder weight. Overdosing (> 10%) may result in decreased final strength.

Dispensing and Mixing: MasterRoc SA 190 admixture is added at the nozzle. MasterRoc SA 190 admixture is a suspension and therefore not all types of dosing pumps will work properly. To secure a constant and adequate dosage is of crucial importance in order to achieve a good result.

Works very well with:

- Membrane pumps
- Rotor-stator pumps
- Peristaltic pumps
- Gear pumps

Do not use with:

- Piston pumps
- All pumps with ball and seat valves
- Pressure tanks

Do not use a filter on the suction hose as it causes obstructions. Avoid suction directly off the bottom of the drum/container.

Application Procedure: The substrate must be clean and free from loose particles.

Cleaning of Dosing Pump: Prior to the use of MasterRoc SA 190 admixture, the dosing pump and accelerator hose must be thoroughly cleaned with plenty of water. Failure to do this promotes blockages in the dosing system. Make sure all operators involved in testing and application are informed.

Product Notes

Compatibility: Do not mix MasterRoc SA 190 admixture with other accelerators as this will cause immediate clogging of pumps and hoses.

Storage and Handling

Storage Temperature: MasterRoc SA 190 admixture should be stored at a temperature range of 41 to 95 °F (5 to 35 °C). It is recommended that your local sales representative be consulted prior to the use of any products that were frozen. Performance tests should always be carried out prior to use.

MasterRoc SA 190 admixture must be kept in closed plastic drums/containers or closed tanks made of plastic/glass fiber. Do not store in steel containers as the pH can cause corrosion which might affect the performance of the product. Containers must be tightly closed every day to avoid contact with air which can cause a chemical reaction (skin building on top and lumps which cause problems with dosing pumps). Stir MasterRoc SA 190 admixture before use after prolonged storage. It can have a settlement not visually detectable.

Shelf Life: MasterRoc SA 190 admixture has a minimum shelf life of 6 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your local sales representative regarding suitability for use and dosage recommendations if the shelf life of MasterRoc SA 190 admixture has been exceeded.

Safety: Avoid eye and skin contact and wear rubber gloves and chemical goggles. If contact occurs, rinse with plenty of water. In case of eye contact seek medical advice immediately. Refer to the Safety Data Sheet for MasterRoc SA 190 admixture for further information.

Packaging

MasterRoc SA 190 admixture is supplied in drums, 268 gal (1,014.5 L) totes and by bulk delivery.

Related Documents

Safety Data Sheets: MasterRoc SA 190 admixture

Additional Information

For additional information on MasterRoc SA 190 admixture, contact your local sales representative.

The Admixture Systems business of BASF's Construction Chemicals division is the leading provider of solutions that improve placement, pumping, finishing, appearance and performance characteristics of specialty concrete used in the ready-mixed, precast, manufactured concrete products, underground construction and paving markets. For over 100 years we have offered reliable products and innovative technologies, and through the Master Builders Solutions brand, we are connected globally with experts from many fields to provide sustainable solutions for the construction industry.

Limited Warranty Notice

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