

MasterRoc[®] AGA 255

Powerful Stabilizer Admixture with Low Environmental Impact to Improve the Performance of Two Component Backfill Grouts that Require Higher Open Times in Mechanized Tunneling

Material Description

MasterRoc[®] AGA 255 is a very powerful liquid stabilizer that delays the hydration process of the cement particles of the Component A of your two component annulus grout for mechanized tunneling applications. MasterRoc[®] AGA 255 displays a longer open time effect than conventional stabilizers, improving the fluidity and workability of Component A, allowing long distance pumping. During its action, it delays the initial and final set of Component A in a longer and controlled manner. Due to the improved delay of the hydration process, MasterRoc[®] AGA 255 favors optimum conditions for improved strength characteristics of the final two component grout.

Areas of Application

MasterRoc[®] AGA 255 is designed for two component grouting systems applications in mechanized tunnelling, to set open time of Component A. MasterRoc[®] AGA 255 is fully compatible with accelerators such as MasterRoc[®] AGA 370.

Characteristics and Benefits

Operational

- Increase of stabilization, fluidity, and pumping distance of Component A.
- Highly effective in low cement content grouts, with high water cement ratio and flow.
- Higher open time: it enables the grout to be workable over a longer time than conventional stabilizers.

- Control of the initial set time of Component A.
- The delay in setting time allows long storage of the annular grout in the pumping lines and grout agitator tanks on the TBM in a controlled manner.
- Avoid of clogging in pipelines and in the whole grout system over controlled time (time depends on mix design), i.e., in mixers, holding tanks, pumping system, pipelines and other equipment and plants.
- Excellent performance in hot weather, where the control of initial and final set times is important.

Technical

- Increased compressive, tensile and flexural strength of grouts.
- Increased density of grout mixes reducing permeability and thus increasing durability.

Application Procedure

MasterRoc[®] AGA 255 is to be added during the mixing cycle of Component A after water, bentonite and cement. Do not add MasterRoc[®] AGA 255 to the dry cement. No extension to normal mixing time is necessary.

Dosing System

Whether in one or two components grouts, specific Lab trials must be carried out to determine the optimum dosage of MasterRoc[®] AGA 255. As a general guidance on dosage rates:

- Cementitious grouts for standard use: between 500ml and 750ml per 100kg

Technical Properties

Form	Liquid
Color	Clear to light brown
Specific Gravity (25°C)	1.260 ± 0.03 g/cm ³
pH	5.5 ± 1.5%
Equivalent in Na ₂ O	≤ 8

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- Cementitious grouts with higher retardation required: between 750ml and 1500ml per 100kg

Compatibility

MasterRoc[®] AGA 255 can be used with all types of Port-land cement including those sulphate resisting (Type V). MasterRoc[®] AGA 255 should not be premixed with other admixtures. If other admixtures are to be used in annular grouts containing MasterRoc[®] AGA 255, they must be dispensed separately. MasterRoc[®] AGA 255 is fully compatible with accelerators such as MasterRoc[®] AGA 370. Please consult your Master Builders Solutions UGC Technical Department for any concern.

Packaging

MasterRoc[®] AGA 255 is available in 1000 kg IBCs, 210 L drums and in bulk.

Dispenser

MasterRoc[®] AGA 255 should be dispensed through a proprietary dispenser, such as is available from Master Builders Solutions.

Storage and Shelf Life

MasterRoc[®] AGA 255 should be stored in a clean, dry place at temperatures between 5–35 °C, in its original sealed packaging, protected from freezing. Under these conditions, the product can be stored safely for up to 12 months

Health and Safety

For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapor until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

Contact

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