

## PRODUCT DATA SHEET

# Sika® Stabilizer AGA 155

(formerly MasterRoc® AGA 155)

Plasticising admixture with set retarding properties for use in annular grout mixes for TBM tunneling

### DESCRIPTION

Sika® Stabilizer AGA 155 is a powerful liquid plasticizer which disperses and deflocculates cement particles whilst delaying the hydration process, thereby retarding the initial and final set. It can be used to improve workability without the addition of extra water, or to allow reductions in the free water content. Due to improved dispersion of the cement particles the process of hydration proceeds under the optimum conditions, leading to improved strength characteristics with or without reduction in free water.

### USES

- High flow, low cement content, high W/C ratio annular grout mixes for TBM tunneling.
- Hot weather applications of grout where control of initial and final set is important.
- Retarded mortar mixes (also in combination with SikaPaver®-910 MC)

### FEATURES

Setting control of annular grout mixes for injection behind segmental tunnel linings. Sika® Stabilizer AGA 155 is designed for use in one or two component grouting systems and is compatible with accelerators such as Sika® Stabilizer AGA 370.

- Increases compressive, tensile and flexural strength of concrete
- Increases density of grout mixes reducing permeability and thus increasing durability
- Allows a reduction in free water in the region of 5-12%
- Highly effective in low cement content high water cement ratio mixes where its use enables grout to be made more workable without loss in strength, density and durability
- Enables controlled extension of initial set
- The retarding action allows storage of the annular grout in the pumping lines and grout agitator tanks on the TBM for up to 72 hours depending on dosage
- The strength gain of annular grouts containing Sika® Stabilizer AGA 155 is enhanced. After retardation of initial and final set, a more rapid hardening of the grout occurs, and the effect on stripping time is negligible

### CERTIFICATES AND TEST REPORTS

EN 934-2 Tables 6 and 10 ASTM C494: Type B & D

### PRODUCT INFORMATION

<b>Packaging</b>	Sika® Stabilizer AGA 155 is available in bulk, 1000 L IBCs or 210 L drums.
<b>Shelf life</b>	Shelf life is 12 months in unopened original packing.
<b>Storage conditions</b>	Store in sealed containers or storage tanks to protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

**Appearance and colour** Clear to light brown liquid

**Density** at 25°C 1.158

**Total chloride ion content** "chloride free" to EN 934-2

## APPLICATION INFORMATION

**Recommended dosage** Field trials should be conducted to determine the optimum addition rates of Sika® Stabilizer AGA 155. As a guide to these trials, a dosage range of 500ml to 750ml per 100kg of cementitious material for normal use and 750 to 1500ml where higher retardation is required. Dosages outside this range can be used where improved workability, increased water reduction and / or further set retardation are required.

**Dispensing** Sika® Stabilizer AGA 155 should be dispensed through a proprietary dispenser.

**Compatibility** Sika® Stabilizer AGA 155 can be used with all types of Portland cement including sulphate resisting (Type V). Sika® Stabilizer AGA 155 should not be premixed with other admixtures. If other admixtures are to be used in annular grouts containing Sika® Stabilizer AGA 155, they must be dispensed separately.

## BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## LIMITATIONS OF USE

A severe over dosage of Sika® Stabilizer AGA 155 will result in:

- Increased retardation of initial and final set.
- Increase in workability.

Providing annular grout is properly cured the ultimate strength of the grout will not be adversely affected and will generally be higher than for normal concrete. Care should be taken to allow for the effect on injection pressures and advance rates.

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

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## APPLICATION INSTRUCTIONS

### APPLICATION

Sika® Stabilizer AGA 155 should be added to the annular grout mix during the mixing cycle, at the same time as the water, or the bentonite. Never add Sika® Stabilizer AGA 155 to the dry cement. No extension to normal mixing time is necessary.

### LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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### Product Data Sheet

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