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31 32 33	<b>Shotcrete Soil Slope Stabilization</b>
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# MasterRoc<sup>®</sup> AGA 4 IS

## Admixture for TBM annulus grouting

### Description

MasterRoc AGA 4 IS admixture is a high performance grout accelerator mainly used for TBM annulus grouting, whose dosage can be varied to achieve the desired setting and hardening times.

### Applications

Recommended for use in:

- Tunnel boring machine (TBM) applications
- Grout mixes with or without cementitious binders

### Features and Benefits

- Fast and adjustable setting times
- High-early strength
- Low viscosity
- Low consumption

### Performance Characteristics

#### Technical Data

Form	Liquid
Color	Pale yellow
Solubility in water	Total

#### Properties

	Minimum	Maximum
Specific Gravity (degrees Baumé at 68 °F [20 °C])	37.5	39.0
Specific Gravity (at 68°F [20°C])	1.35	1.37
Sodium Oxide (Na <sub>2</sub> O), % by mass	8.14	8.51
Silica (SiO <sub>2</sub> ), % by mass	26.28	27.35
Total Solids, % by mass	34.42	35.86
Mass Ratio (SiO <sub>2</sub> /Na <sub>2</sub> O)	3.17	3.27
Viscosity (centipoise at 68 °F [20 °C])	45	80



## Guidelines for Use

**Application procedure:** MasterRoc AGA 41S admixture is a liquid material, which is added into the grout stream as close as possible to the end of the tail shield grout ports.

**Dosage:** For every yd<sup>3</sup> of grout it is expected that 42 to 200 lb (25 to 120 kg for 1 m<sup>3</sup> of grout) of MasterRoc AGA 41S admixture will be required. Depending on the required properties of the grout, trial tests should be done to determine the optimum dosage.

## Storage and Handling

**Storage Temperature:** MasterRoc AGA 41S admixture must be stored in a dry place at temperatures between 40 °F and 95 °F (5 °C and 35 °C).

**Shelf Life:** MasterRoc AGA 41S admixture is non-hazardous. However, it is recommended to follow standard precautions when handling chemicals. Wear eye protection and gloves when handling the product.

## Packaging

MasterRoc AGA 41S admixture is supplied in drums, totes and by bulk delivery.

## Related Documents

Safety Data Sheet: MasterRoc AGA 41S admixture.

## Additional Information

For additional information on MasterRoc AGA 41S admixture, contact your local sales representative.

*Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.*

## Limited Warranty Notice

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