

# MasterRoc<sup>®</sup> TSG 6

## Tail Sealant for Shielded Tunnel Boring Machines (TBM)

### Description

MasterRoc TSG 6 tail-shield sealant is for shielded tunnel boring machines (TBMs). MasterRoc TSG 6 sealant effectively seals the gap between the shield and concrete segments to prevent the ingress of soil, water or grout.

MasterRoc TSG 6 sealant is formulated to resist water and ground pressures and will not break down under high mechanical pressures. It has excellent pumping properties and will adhere to most metal or concrete surfaces.

### Applications

Recommended for use in:

- Tunneling with Shielded TBMs

### Features

- Excellent pumping properties
- Excellent sealing properties
- Adheres to any metal or concrete surface
- Resistant to high water and ground pressures
- Non-miscible with annulus grout
- Environmentally preferable

### Benefits

- Prevents the ingress of soil, water or grout into shielded TBMs
- Provides corrosion protection to wire seals

### Performance Characteristics

**Consumption:** Consumption will depend on numerous factors, such as segment surface conditions, curve drives, brush conditions, grouting pressures, etc. but will usually be in the range of 0.08 to 0.3 l lb/ft<sup>2</sup> (0.4 to 1.5 kg/m<sup>2</sup>) of tunnel surface area.

### Technical Data

Form	Homogeneous Paste
Color	Light Grey
Smell	Slight Odor
Density at 72.5 °F (22.5 °C)	101.1 lb/ft <sup>3</sup> (1.62 g/cm <sup>3</sup> )
Consistency (ASTM D217), in. (1/10 mm)	0.89 (225)
Matsumura sealing test	493 psi (34 bar) – Passed
Load Hysteresis Value (N @ 10mm penetration)	3.0
Sliding on metal surface (Dropping time), min	> 15
Water spray off test (ASTM D4049), % Mass loss	< 5%
Soluble in water	No



## Guidelines for Use

MasterRoc TSG 6 sealant is designed for use in conditions where the temperature typically remains above 50 °F (10 °C).

## Storage and Handling

**Storage Temperature:** MasterRoc TSG 6 sealant should be stored in unopened, original containers, preferably at 41 to 95°F (5 to 35°C).

**Shelf Life:** MasterRoc TSG 6 sealant has a minimum shelf life of 12 months. Depending on storage conditions, the shelf life may be greater than stated. Contact your local sales representative regarding suitability for use and dosage recommendations if the shelf life of MasterRoc TSG 6 sealant has been exceeded.

**Safety:** MasterRoc TSG 6 sealant is an inert material and is not hazardous. MasterRoc TSG 6 sealant is ecologically and environmentally preferable and poses no threat to worker safety.

However, it is recommended that all normal precautions be taken when handling the product such as the use of eye protection and gloves. Refer to the Safety Data Sheet for MasterRoc TSG 6 sealant for more information.

MasterRoc TSG 6 sealant has passed a risk assessment indicating that the leachable components of the sealant are biodegradable.

## Packaging

MasterRoc TSG 6 sealant is packaged in 154 lb (70 kg) and 550 lb (250 kg) drums.

## Related Documents

Safety Data Sheets: MasterRoc TSG 6 sealant.

## Additional Information

For additional information on MasterRoc TSG 6 sealant or its use in developing concrete mixtures with special performance characteristics, 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

Master Builders Solutions Admixtures US, LLC ("Master Builders Solutions") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders Solutions. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. MASTER BUILDERS SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders Solutions' present knowledge and experience. However, Master Builders Solutions assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders Solutions reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.