

MasterRoc[®] 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 0.31 lb/ft² (0.4 to 1.5 kg/m²) 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 ³ (1.62 g/cm ³)
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.

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Utilizing worldwide resources, the Master Builders Solutions community of experts are passionate about providing solutions to challenges within all stages of construction, as well as the life cycle of a structure. At Master Builders Solutions we create sustainable solutions for construction around the globe.

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