

# MasterRoc<sup>®</sup> TSG 870

First Fill Fire Resistant Tail Sealant for Shielded Tunnel Boring Machines (TBM)

## Material Description

MasterRoc TSG 870 is our new fire resistant first fill tail grease for shielded tunnel boring machines. It effectively seals the gap between the shield and concrete segments to prevent the ingress of water, grout, and soil.

It is formulated to resist high water and grout pressures and has excellent adhesion to all types of surfaces. It is designed as a first fill sealant.

## Areas of Application

Tunneling with shielded mechanized tunnel boring machines (TBMs) equipped with a tail seal brush system.

## Characteristics and Benefits

### Operational

- Excellent sealing properties
- Excellent adhesion to any metal or concrete surfaces
- Good pumping properties.
- Pumping system recommended to be close to the application location

### Technical

- Excellent consistency and sealing properties
- Proper adhesion to any metal or concrete surfaces
- Very high washout resistance
- Non-miscible with annulus grout

## Packaging

MasterRoc TSG 870 is available in standard 260 kg steel drums, 20kg or 65kg pails for press plate pumps. PE lined drums are also available to facilitate recycling and minimize wastage.

## Technical Data

Form	Homogeneous paste
Color	Light grey
Odor	Slight odor
Density [g/cm <sup>3</sup> ] @22.5°C	1.59
Consistency; ASTM D 217 [1/10 mm]	195
Matsumura sealing test	34 bar passed

Load Hysteresis Value [N @ 10mm]	5.0
Sliding on metal surface [min] (dropping time)	>90
Water Spray Off Test	<7%
Soluble on water	No

MasterRoc TSG 870 exhibits:

- Anti washout properties
- Excellent adhesion to all metal and concrete surfaces

## Consumption

The average consumption to fill a 3-row brush system is 50kg per meter shield circumference.

## Storage

MasterRoc TSG 870 should be stored at 5 - 35°C. If stored in original tightly closed drums it has a shelf life of 12 months.

## Precautions

MasterRoc TSG 870 is an inert grease and is not hazardous. Standard precautions for handling chemical products should be observed.

Avoid eye and skin contact and wear rubber gloves and safety glasses. For further information, refer to the Material Safety Data Sheet which you can obtain from our local Master Builders Solutions representative.

## Ecological Information

MasterRoc TSG 870 is not in direct contact with the natural surfaces; therefore, no environmental emissions are expected during the application of the product. A potential emission to the environment is thus only dependent on the water fluxes through the grout.

MasterRoc TSG 870 is ecologically and environmentally friendly and poses no threat to worker safety or the environment.

MasterRoc TSG 870 has passed a risk assessment indicating that leachable components are biodegradable, keeping pace with environmental regulations.



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## Product Disposal Information

Deliberate discharge of the product into the environment must be avoided.

## Disclaimer

The information given here is true, represents our best knowledge and is based not only on laboratory work but also on field experience. However, because of numerous factors affecting results, we offer this information without guarantee and no patent liability is assumed. For additional information or questions, please contact your local representative.

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