

MasterRoc® TSG 870

Fire Resistant Tail First Fill Fire Resistant Tail Sealant for Shielded Tunnel Boring

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

MasterRoc® TSG 870 exhibits:

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

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.

Consumption

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

Technical Properties	
Form	Homogeneous Paste
Color	Light grey
Specific Gravity (22.5°C)	1.59 g/cm ³
Odor	Slight odor
Consistency (ASTM D 217) (1/10 mm)	195
Matsumura Sealing Test	34 bar passed
Load Hysteresis Value (N 10 mm)	5.0
Sliding on Metal Surface (min.) (dropping time)	>90
Water Spray Off Test	>7 %
Soluble on Water	No

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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.

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.

Storage and Shelf Life

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.

Health and Safety

For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapor until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları**

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