

MasterRoc[®] TSG 870

First fill fire resistant tail sealant for shielded tunnel boring machines (TBM)

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.

TYPICAL APPLICATIONS

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

OPERATIONAL BENEFITS

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

ADVANTAGES

- 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) 205 L drums; 20 kg or 65 kg pails for press plate pumps. PE lined drums are also available to facilitate recycling and minimize wastage.

TYPICAL PROPERTIES*

Form	Homogeneous paste
Colour	Light grey
Odour	Slight odour
Density @ 22.5°C	1590 kg/m ³
Consistency; ASTM D 217 (1/10 mm)	195
Matsumura sealing test	34 bar
Load hysteresis value @10mm	5.0 N
Sliding on metal surface (dropping time)	>90 min
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 AND SHELF LIFE

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

PRODUCT DISPOSAL INFORMATION

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

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.

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

HEALTH AND SAFETY

MasterRoc TSG 870 is an inert material and is not hazardous. It 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 leachates are biodegradable, keeping pace with environmental regulations.

It is recommended that all standard precautions must be taken when handling the product, such as the use of eye protection and gloves.

* Properties listed are based on laboratory controlled tests.

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