

# MasterRoc TSL 865

Spray applied polymer based membrane for surface sealing and weathering protection of rock and coal strata

## Material Description

**MasterRoc TSL 865** is a single-component polymer powder for spray application onto soil and rock for reinforcement or weathering protection. Through good bond to most substrates, high elasticity and high tensile strength, the ground stability and stand-up-time is improved. Sprayed concrete can be applied against the membrane as soon as it has set.

## Areas of Application

- Stabilization of soil and rock
- A possible alternative to mesh/screen protection, with or without bolts
- Preliminary slope protection binding the surface before the area is ready for sprayed concrete
- Helps to reduce hardrock strain bursting
- Pillar/rib support
- Rehabilitation of collapsed areas
- Vent stopping
- Water retention pond liners

## Characteristics & Benefits

- No toxic components
- No classification needed for transport
- Ready for use
- Fast setting (within five minutes) and gains tensile strength during the following hours, days and weeks
- Good bond to concrete, rock and coal
- Spray application by simple equipment
- Rapid set up; allows stop and start at any time; easily cleaned with minimal waste
- Reduces air-slaking and rock weathering

## Technical Data

Form	Powder
Colour	White
Bulk density powder (+20°C)	690g/l ± 90 g/l
Consumption	0.9kg/m <sup>2</sup> per mm
Application thickness	2 to 10mm
Application temperature	+5°C to + 45°C
Tensile Strength After:	
4 hours	> 0.2 MPa
1 day	> 0.4 MPa
7 days	> 2.0 MPa
56 days	> 5.0 MPa
Elongation at break After:	
4 hours	> 100%
1 day	> 50%
7 days	> 60%
56 days	> 30%
Bond strength to concrete after 14 days	1.7 MPa
Bond strength to coal	Mostly coal failure
Flammability	Self-extinguishing

## Application

**MasterRoc TSL 865** thin spray-on liner must be used under the supervision of a qualified geotechnical engineer. The product should primarily be used to increase safety by application onto potentially unstable ground where other means cannot be effectively applied due to space limitations, restrictions or other considerations. Depending on the specific ground conditions, the effect of **MasterRoc TSL 865** thin spray-on liner may in some cases be of a temporary nature, especially if used alone. The need for other support measures to supplement and further strengthen the ground (especially rock anchors and sprayed concrete), must always be carefully considered.

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## Surface Preparation

For details about this subject, please refer to the "Method Statement" document, Revision 3, Chapter 2.

## Equipment

It is required to apply **MasterRoc TSL 865** thin spray-on liner by the dry spraying method. Basic recommended equipment set-up:

- Rotor with 18 pocket feed bowl
- Rotor dust collector
- Double Bubble nozzle with 18 hole water ring
- Spraying hose diameter 32 mm
- Water separator on air supply

Suitable spray equipment should be fitted with a dust collection filter. The supplied compressed air has to run through a dewatering device to avoid too high humidity and material buildup in the equipment and hoses.

*Note: Under no circumstances should MasterRoc TSL 865 thin spray-on liner be sprayed without the addition of water at the nozzle*

## Spraying Technique

For details about this subject, please refer to the latest Method Statement document under the section "Conditions for successful spraying".

## Consumption

Consumption depends on the substrate, but about 1 kg of dry powder per square meter and mm thickness can be used as a guideline (theoretical 0.9kg/m<sup>2</sup> and mm).

## Cleaning

All equipment can be cleaned by blowing compressed air through the system (aiming into water). The nozzle itself should be inspected and cleaned out with water after every break in the spraying process. During continuous application there is no need for nozzle cleaning as long as water and air supply is sufficient and correctly adjusted.

## Packaging

**MasterRoc TSL 865** is available in 20kg bags.

## Storage & Shelf Life

**MasterRoc TSL 865** has a shelf life of 12 months if stored in original, unopened bags between +5 °C to +40°C. The product must be kept out of direct sunlight. The storage area must be kept dry.

## Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.



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## Disclaimer

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### STATEMENT OF RESPONSIBILITY

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