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V-Seal TSL (Thin Skin Liner)
Technical Datasheet

1. Description

V-Seal is a flexible 2-part polymer-based cement spray liner with excellent bonding and waterproofing properties. The extreme durability and high impact resistance of V-Seal makes it ideal for a wide range of applications.

2. Properties

Cement Part

Property	Value
Nature	Powder
Specific Gravity @ 20°C	2600 kg/m³
Colour	Grey
pH	Alkaline
Setting Time	40min @ 25°C
Application Thickness	8mm
Application Temperature	5°C to 40°C
Flammability	Non-Flammable

Liquid Part

Property	Value
Nature	Liquid
Specific Gravity @ 20°C	1000 kg/m³
Colour	Milky White
Smell	Polymer like
Solubility in water	Miscible in all proportions
Boiling Point	100°C

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Address Farm Nooitgedach, Fochville | 26°30'30.35S | 27°30'24.52E

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Freezing Point	0°C
Flammability	Non-Flammable

3. Packaging

Containers	125 kg Bag + 5 Litre Liquid

4. Directions for Use

Applications

- Soil stabilisation in tunnelling works
- Prevents rock from oxidising
- Reinforcement protection barrier against rock strain movements
- Surface support
- Stabilisation of areas prone to soil movements
- Protection barrier against weathering and soil erosion
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Characteristics

- V-Seal is an easy-to-mix, easy-to-apply product
- Flexibility allows for substrate movement and deformation
- Good bond strength to most rock-type surfaces
- Extremely durable and impact resistant
- UV-resistant
- Minimal dust and rebound during application
- Fast setting, high early-strength gain

Surface Preparation

Remove loose rocks and debris from the surface and ensure that the surface is sound. Soil conditions must be carefully inspected, and the appropriate stabilisation system must be recommended by a qualified geotechnical engineer. The application of V-Seal must be used under the supervision of a qualified person.

Mixing

Add approximately 5 litres of polymer to a 25kg bag of V-Seal. Mix thoroughly with a mechanical mixer for 2 – 3 minutes until the desired homogenous slurry is achieved. Ensure that the mix is free from lumps before use.
***NB – Do not add additional water to the mix as it will have a negative effect on the quality of the product.**

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Cleaning

All equipment can be cleaned by blowing compressed air and water through the system. 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 if the water and air supply is sufficient.

Tests
Biaxial Flexural Strength and Deformation measured on a 100mm diameter, ±5mm thick disc.

	24 Hours	3 Days	7 Days	14 Days	28 Days
Biaxial Flexural Strength	25 MPa	4.5 MPa	6 MPa	6.5 MPa	8 MPa
Flexural Deformation	>5mm	>5mm	>5mm	>5mm	>5mm
Tensile Strength	2 MPa	3 MPa	3.5 MPa	4 MPa	4.5 MPa
Bond Strength	0.8 MPa	1.2 MPa	1.8 MPa	2.5 MPa	3 MPa

5. Safety and Storage

Always wear full PPE when using the product. For further information refer to MSDS or contact your local RSS Mining Representative. V-Seal is classified as harmless. RSS Mining (Pty) Ltd will provide onsite assistance when requested.

V-Seal is guaranteed for 12 months from the manufacturing date, provided no other chemicals are added to it.The product should be stored in a dry place in temperature between 5°C and 40°C.

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