

Technical data sheet **CHRYSO® TSL LP** **(Liquid Polymer)**

A dustless thin skin liner that is a two pack product.



Description

CHRYSO®TSL LP is a dustless, cementitious, thin skin liner that is supplied in a two packages. The one part comprises fillers, cement and **CHRYSO®Additives** while the second part contains the polymer. The dry powders are premixed to conveniently assist in the mixing process.

Advantages

- The dustless element of **CHRYSO®TSL LP** provides a huge advantage to the surrounding environment of the mine/tunnel as well as the health and safety of people using the product or working within the vicinity of the product
- Non flammable
- Non toxic
- Fast setting – early strength gains
- High flexural strength properties
- Forms a flexible barrier
- Good tensile strength (when applied to a large portion of the substrate)
- Can be sprayed/trowel applied
- **CHRYSO®TSL LP** is supplied is a pre-mixed bag – this is far more convenient and eliminates potential errors in the mixing, such as under mixing

Physical and chemical properties

Cement part

- Physical state (20°C): One part – powder and another part liquid polymer in a bottle
- Colour: White/Grey/Super white
- Specific gravity (20°C): 2.80
- pH: alkaline
- Final setting time: 2 hours (@25°C)
- Application thickness: 2 mm – 8 mm
- Application temperature: 5°C - 35°C
- Flammability (DIN 4102 – B2): Self extinguishing

Liquid part

- Physical state (20°C): liquid
- Colour: milky white
- Specific gravity (20°C): ±1.00
- Smell: odourless
- Non volatile content (NVC): ±30%
- Solubility in water: miscible in all proportions
- Boiling point: 100°C (water)
- Freezing point: 0°C (water)

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Note

- **CHRYSO®TSL LP** falls into the 'Strong Category' of Thin Skin Liners according to the *Wits Test Methods*. The comparative evaluation report shows that most Thin Skin Liners compare similarly.
- The actual field performance will depend on installation methods and site conditions.

Application guidelines

Uses

- Soil stabilisation in tunnelling works
- Reinforcement protection barrier against rock strain movements
- Temporary surface support preparation for shotcreting
- Stabilisation of areas prone to soil movements
- Protection barrier against weathering and soil erosion
- Prevent rock from oxidising

Surface preparation

Remove loose rocks and debris from the surface and ensure that the surface is sound. Soil conditions must be carefully studied and the appropriate stabilisation system must be recommended by a qualified geotechnical engineer. **CHRYSO®TSL LP** must be used under the supervision of a qualified person. Depending on the soil conditions – other support measures to supplement and further strengthen the soil (eg rock anchors or sprayed concrete) may be required.

Mixing

Add approximately 4 litres of polymer to a 25 kg bag of **CHRYSO®TSL LP**. Mix thoroughly with a mechanical mixer for 2 – 3 minutes until the desired homogenous paste is achieved. Ensure that the mix is free from lumps before use.

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Placement

Spray the product onto the substrate to the thickness required. Coverage guideline is 12 m² per bag per mm of thickness. The actual coverage rate depends upon the substrate condition.

Cleaning equipment

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

Storage

- **CHRYSO®TSL LP** is guaranteed for 12 months starting from the manufacturing date provided no other chemicals are added to it.
- The product should be stored in a dry place – free from any contact with moisture.
- The product can be stored in temperature between 5°C and 40°C.

Packaging

25 kg bags

Health and safety

This product is classified as harmless. **CHRYSO** will provide onsite assistance when requested. Refer to the material safety data sheet.

Disclaimer: The information contained in this document is given to the best of **CHRYSO's** knowledge and is the result of extensive testing. However, this document will not under any circumstances be considered as a warranty involving **CHRYSO's** liability in case of misuse. Tests should be carried out before any use of the product to ensure that the methods and conditions of use of the product are satisfactory. **CHRYSO** specialists are at the disposal of the users in order to help them with any problems encountered.