

sil•hard Li⁺

liquid densifier and sealer for concrete and cementitious mortars

- Strong penetrating ability
- Increases the hardness and density of concrete
- It largely waterproofs concrete by growing insoluble crystals within the porosity
- Reduces the risk of capillary cracks in concrete
- Stabilizes and increases the durability of old cement surfaces



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DESCRIPTION

Aqueous solution of active silicate salts with high penetrating ability.

The active substances of **SIL•HARD Li⁺** react chemically with the soft and porous calcium hydroxide that is formed during cement hydration and convert it to insoluble and chemically resistant crystals of calcium silicate hydrate, thus reducing the porosity and significantly increasing the durability of concrete and cementitious mortars.

In comparison to common concrete densifiers the active substances of **SIL•HARD Li⁺** additionally react with CO₂ to form a hydrophobic polymer within the pores and the surface. This synergistic activity effectively seals the concrete and provides water resistance from the first day after application.

APPLICATIONS

It is applied for the densification and hardening of the surface of concrete, industrial floors (after the application of the industrial floor surface hardener **HT 250 HARD TOP**), terrazzo floors and cementitious mortars. Additionally, for the renovation of concrete floors in order to strengthen their structure, to reduce dust generation and increase surface hardness and abrasion resistance.

Suitable for indoor and outdoor applications.

PROPERTIES / ADVANTAGES

- Ready-to-use product.
- Decreases the water absorption of concrete and cementitious mortars.
- Increases the surface durability of concrete and cementitious mortars.
- It provides smooth curing of the concrete, reducing the risk of capillary cracks.
- Stabilizes old and loose cementitious surfaces, reduces dust creation and increases surface hardness.

APPLICATION INSTRUCTIONS

- The surfaces must be dry with open pores in order to allow the penetration of the product.
- Fresh concrete or mortar must have developed adequate strength and application must take place after at least 24 hours.
- **SIL•HARD Li⁺** is ready-to-use and is applied by spraying in one or more layers depending on the absorbency of the surface.
- During application **SIL•HARD Li⁺** must remain on the surface for about 20 minutes. If it is absorbed then an additional coat must be applied.
- Excess material that can't be absorbed must be cleaned with a wet tissue.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water after use.

RECOMMENDATIONS

- Do not apply when ambient temperature is lower than +5°C.
- Do not apply on gypsum surfaces.
- Do not apply on polished surfaces, as their absorbency is significantly reduced.
- Surfaces that are sensitive to alkaline solutions, e.g. aluminum, glass, etc., should be protected before application.

TECHNICAL CHARACTERISTICS	
PRODUCT CHARACTERISTICS	
Appearance	liquid
Colour	clear
Density	1.10 ±0.05 kg/l
pH	12
APPLICATION CHARACTERISTICS (+23°C / 50% R.H.)	
Mixing ratio	ready-to-use product
Application temperature	to be applied at temperatures above +5°C
Consumption	0.15-0.25 kg/m ² depending on the surface's absorbency

Note: Measures were carried out in laboratory environment conditions. The different conditions on site (temperature, humidity, wind, substrate absorption) may affect the properties of the material.

SAFETY PRECAUTIONS

- **SIL•HARD Li⁺** is strongly corrosive and can cause serious burn on skin and eyes.
- It is recommended to always wear appropriate protective equipment for eyes and skin (protective clothing, gloves and goggles).
- If skin contact occurs, rinse well with plenty of clean water and soap.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Consult product's Safety Data Sheet for further instructions on safety handling.
- Keep the product away from the reach of children.
- **PRODUCT FOR PROFESSIONAL USE.**

PACKAGING - STORAGE

Available in:

- 5kg and 20kg plastic containers.

Storage: 12 months from production date, if stored in original, sealed container, protected from direct sunlight and frost.

LEGAL NOTICE

The technical characteristics and recommendations for the use and application of the **FINOMIX** range of products are based on the knowledge and experience of the company. The above information shall be considered merely indicative and subject to confirmation after long-term practical application. For this reason, anyone who intends to use the product must ensure that it is suitable for the envisaged application. Since the specific site conditions during the applications are beyond the control of our company, the user alone is fully responsible for any consequences deriving from the use of the product. **FINOBETON S.A. (FINOMIX)** has the right to modify the properties of its products without prior notice. This release voids any previous publications issued for this technical specifications sheet.

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 DRY MORTARS

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