

PRODUCT INFORMATION

LITHIUM DENSIFIER

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Manufacturer's Code: RPLDR

Updated: 01/01/2018

Product Name: LITHIUM DENSIFIER

Description: LITHIUM DENSIFIER is a specially formulated penetrating sealer containing active lithium silicates. This sealer penetrates into the concrete surface and blocks the pores or capillaries by formation of calcium silicate hydrate. This calcium silicate hydrate binds within the concrete matrix and hardens the concrete surface resulting in hard, dense, dust free and traffic resistant surface finish. Smooth or gloss finishes can be easily achieved by surface polishing. Due to the high activity of lithium silicates, LITHIUM DENSIFIER accelerates the concrete polishing process, thus saving time and costs. Unlike traditional sodium silicates, this sealer unlikely leave residues such as white effloresce salts or other unwanted residue discolorations on the treated surface.

Recommended Uses: LITHIUM DENSIFIER is used as a concrete surface densifier or strengthener sealer. Typical applications include treating polished concrete floors in residential housing constructions, retail establishments, shopping centre foyers and manufacturing warehouses. It is also suitable for dust-proof or water-proof sealing of concrete masonry if applied appropriately. LITHIUM DENSIFIER may apply to other masonry substrates including natural stones, clay bricks or ceramic tiles for the similar purpose of application. However, a test should be conducted prior to application to determine the suitability of this product for the purpose.

The key features of LITHIUM DENSIFIER are outlined below:

- Lithium silicates allow quick application with low risk of unwanted residues
- Accelerates the concrete polishing process therefore saving time and costs
- Penetrates into concrete beneath the surface ensuring durable protection
- Maintains appearance and slip resistance of the original concrete finish
- Reduces water absorption and water borne staining
- Environmentally friendly formulation and easy clean up with water
- Ready-to-use low viscose formula enables good penetration & easy application

Use Instructions: Surface Preparation

Prior to application, the concrete surface should be completely cleaned of any surface contaminants that would impede the penetration of LITHIUM DENSIFIER, and allowed to dry before application.

Newly casted concrete should be allowed to cure and dry for 28 days. Curing compounds, release agents, or coatings/ membranes should be removed from the surface, cleaned and allowed to dry before applying LITHIUM DENSIFIER. In case of acid treated concrete, the concrete surface should be completely neutralised and thoroughly rinsed with water, and allowed to dry before application.

For polished concrete, the surface is firstly removed by grinding to a minimum 200 grit or desired surface finish to expose the aggregate before applying LITHIUM DENSIFIER. This will ensure maximum absorption of the sealer and make it easy to further polish to finer grades due to the densification achieved by LITHIUM DENSIFIER.

Application

The sealer can be applied with a low pressure hand sprayer, mop or soft bristle brush/broom. Application rate varies depending on porosity of the concrete and climatic conditions. Dense or steel trowelled newly casted concrete may have a low absorption rate, while old porous concrete may absorb significantly more densifier sealer.

LITHIUM DENSIFIER should be evenly flooded onto the surface. Puddling should be avoided. Ensure the sealer is present on the surface as a mirror-like wet liquid film for 20 minutes to ensure maximum absorption. Re-apply wet-on-wet if necessary. Avoid applying the sealer if the surface starts to dry. Brush out any puddles of excess material after 20 minutes. This excess sealer, if not removed, may dry and cause unwanted residue on the surface. This residue may only be removed by using a stiff bristle brush or mechanic scrubbing once the surface has cured and dried. In case of water-proofing application, above application may be repeated several times to ensure fully blocking the pores/capillaries. Shake or stir the sealer before use.

Polishing

The area may be polished once the surface has cured and dried. For an additional water and/or stain resistant treatment, the application of TECH-DRY PROTECTASEAL or other protective sealer is highly recommended. Please contact Tech-Dry on (03) 9699 8202 for further information.

Consumption Rate

The consumption of LITHIUM DENSIFIER varies depending on the permeability of the concrete and climatic conditions. The consumption rate may vary in an order of 5-25 square meters per litre per coat, or could be out of this range significantly.

After Application

Curing starts immediately. Extensive cure may take 24 hours. Full curing may take 7 days or more. Avoid heavy traffic for the initial 24 hours. Wash all equipment in water.

Typical Data:

Appearance:	Colourless clear liquid
Solids content:	<20% by weight
Density:	1.03-1.05 g/ml
pH value:	10-11
Solubility in water:	Soluble in water

Important Note:

LITHIUM DENSIFIER sealer penetrates and blocks the concrete pores or capillaries, and hardens the surface. However, the degree of pore blocking and surface hardening depends on many factors which are out of the manufacturer's control. It is highly recommended that pilot testing in small areas on site be conducted by the applicator prior to application to determine the suitability of this product for the purpose. If in doubt, please contact Tech-Dry on (03) 9699 8202.

Handling & Storage:

LITHIUM DENSIFIER is an alkaline solution. Skin or eye contact should be avoided by wearing proper protection. The risk of vapour inhalation of this product is low, however, an air-purifying respirator should be worn if there is a risk of exposure to high vapour concentrations. Wash hands after handling. The product should be stored in closed containers in a cool dry place away from any fire and ignition sources. The sealer is best used within 6 months, however, the product has a shelf life of 12 months in the sealed original container under 25°C. The product should be used as soon as possible after the original container is opened.

Keep this product away from aluminium surfaces. Keep out of reach of children.

Packaging:

LITHIUM DENSIFIER is available in 20, 200 or 1,000 litre plastic containers.

Disclaimer:

The information given in this data sheet is based on many years of experience and is correct to the best of our knowledge. As the storage, handling and application of this material is beyond our control; we can only be responsible for the quality of our product at the time of dispatch. We reserve the right to alter certain product parameters within the spectrum of properties in order to keep abreast of technical advances. It is the responsibility of the end user to determine the suitability of this material for any particular application.