

FloorHard L

Nano Lithium silicate based concrete densifier

Description

Sodium, Potassium, Magnesium and Lithium silicates react with calcium hydroxide present in the concrete to produce calcium silicate hydrate (C-S-H), the same material that results from the reaction between portland cement and water, giving concrete much of its strength and adhesion. This newly created C-S-H is deposited primarily in the pores, cracks and capillaries of the concrete slab.

Out of the four kinds of silicates, Lithium silicates are more reactive, more penetrative and more efficient than the other three.

The reaction of Lithium in concrete is non-expansive and therefore will not contribute to crazing, map cracking or alkali-silica reaction (ASR).

FloorHard L is Nano Lithium Silicate based concrete densifier recommended for sealing, hardening and polishing of concrete slabs.

Advantages over Sodium Silicate hardeners

- Lithium's reaction in concrete is non-expansive, so it won't contribute to crazing or map cracking
- Lithium reacts more evenly through out the surface zone
- Lithium ions are smaller than sodium and potassium ions, so they penetrate deeply into the concrete
- Sodium ions react violently and unevenly, leaving white residues on the surface
- There is no need of scrubbing, flushing and removal of residues, unlike sodium silicates

Uses

- Surface hardening of new and old concrete floors
- Dust proofing of concrete slabs
- Recommended for warehouses, factory floors, loading ramps, bridge decks, drive ways etc.

Key features

- No skin or film formation
- Penetrative, permanent protection
- Permanent sheen over time
- Ease of maintenance
- Enhanced compressive strength and increased resistance to abrasion and impact
- Transformation of porous concrete into a denser surface that inhibits water, oil and other contaminants from penetrating
- Provides maximum hardening to improve abrasion resistance and reduce dusting
- High Lithium content to combat surface ASR
- Elimination of dusting from efflorescence
- Efflorescence scale : $Li < K < Na$

Properties

Type	: Lithium silicate based
VOC ASTM D 2369	: 0 g / l
Theoretical coverage	: 10 sq m / litre
Packaging	: 20 and 200 litre
Shelf life	: 24 months in the unopened container

Direction to use

Surface preparation

New concrete

7 days curing minimum required. No surface preparation is needed.

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Old concrete

Clean the surface thoroughly so that it is permeable. Strip off old coatings, sealers or anything that would prevent FloorHard L from penetrating into the concrete. The concrete must be completely dry before FloorHard L is applied.

Application

Apply FloorHard L @ 10 sq m per litre. Allow it to be absorbed for upto 4 hours. Very porous surfaces may require additional coat. The densified areas can be either left it alone or polished by resin-bonded polishing tools.

Packaging and storage

FloorHard L is available in 20 and 200 litre packs and has a maximum shelf life of 12 months in un-opened containers. It should be stored in a cool place, away from direct sunlight and rains.

Health and safety precautions

FloorHard L does not fall into the hazard classifications of current regulations. Suitable protective gloves and

goggles should be worn. Splashes on the skin should be removed with water.

In case of contact with eyes rinse immediately with plenty of water and seek medical advice. For further information refer to the Material Safety Data Sheet available for this product.

Disclaimer

All information contained in this data sheet is given to the best of our knowledge, but no warranty is made with respect thereto. This data sheet becomes invalid as soon as a new edition has been published. Please contact us for the latest edition. Description and advice regarding Cipy's products are based on long term field and laboratory tests carried out by us. No condition of warranty is given covering the results from the use of materials in the circumstances of any particular application because the storage, handling and application of the materials are beyond our control.

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