

Eco Densi Shield

100% Lithium Concrete and Paver Densifier/Hardener

Description

Eco Densi Shield is a unique environmentally friendly dispersion of nano-sized lithium silicate particles. These small particles penetrate the concrete and react with the soluble calcium compounds to increase the wear resistance and surface strength of concrete floors that have been mechanically ground, smoothed, and polished. **Eco Densi Shield** works effectively to harden, seal, and densify concrete floors.

As concrete hydrates, water reacts with cement to form calcium hydroxide and silica, which react to form calcium silicate hydrate (C-S-H). C-S-H is the material that bonds the cement with the aggregate in concrete.

The hydration process produces more calcium hydroxide than is used up in this chemical reaction resulting in excess calcium hydroxide. In the hydration process, calcium hydroxide dissolved in water moves to the surface region of a slab and reacts with atmospheric carbon dioxide, producing calcium carbonate also called "free lime." Over the long term, excess free lime is troublesome because it is a primary cause of micro-pitting.

Liquid hardeners/densifiers provide a remedy by introducing additional silicates which react with the excess calcium hydroxide to form more C-S-H. Additional C-S-H means denser, harder concrete.

Uses

Eco Densi Shield can be used on all cement based products including concrete, pavers and tiles.

Advantages

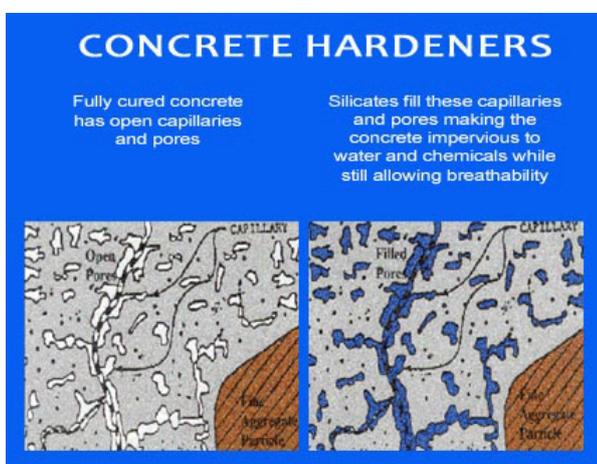
- Provides greater abrasion resistance to polished concrete floors
- Eliminates damage from micro-pitting
- Leaves no staining even when pooling and no need to remove excess product
- Significantly reduces efflorescence and slab edge dampness
- Reduces migration of chemicals and other foreign mater through the slab
- Highly reactive requiring less product to complete a job
- 100% insoluble so it will never wash away
- Time effective requiring only 30 seconds for full reaction, no need to leave wet for long periods
- Odourless, VOC free and friendly to the environment
- Ready to use from container and easy to apply

Coverage

One application will cover approximately 5-20 square meters per litre.

Surface Inspection

Surface must be clean, dry and free from grease, oil, dust, paint, curing agents or any foreign material that might prevent proper penetration.



Surface Preparation

Old Concrete: Concrete should be made free from contaminants by diamond grinding or shot blasting to ensure penetration and reaction. If using acid etches, ensure it is applied, neutralised and rinsed per manufacturer's instructions and that the substrate is dry.

Application

Steel Trowelled and Burnished Concrete: Apply **Eco Densi Shield** as soon as practical after completion of steel trowelling and burnishing.

Eco Densi Shield can be applied by low pressure airless spray or pump pack. It can be applied with a bucket and spread onto the surface with a soft bristled broom.

Apply **Eco Densi Shield** onto the surface in a light even coat and so that it remains wet for 1 - 2 minutes after application.

Honed Concrete: Apply **Eco Densi Shield** after grouting with **Eco Grout + Lithium** and before resin bond diamond tool polishing.

Eco Densi Shield can be applied by low pressure airless spray or pump pack. It can be applied with a bucket and spread onto the surface with a soft bristled broom.

Apply **Eco Densi Shield** onto the surface in a light even coat and so that it remains wet for 1 - 2 minutes after application.

Limitations

- Do not apply in conditions above 30°C
- Do not apply on frozen substrate or when temperature is near freezing
- Do not apply if rain might occur during the next 30 minutes
- Always read MSDS before use

Storage Period: 2 years (5-35°C)

Packaging: 5, 15 and 200 litre plastic containers

Typical Properties:

Appearance	Transparent liquid
Sheen	N/A
Main components	SiO ₂ , Alkaline metal silicate
Solid content, % by weight	15 %
Specific gravity	1.05-1.10
Viscosity (#4 Ford Cup)	13 seconds
Spread rate	5-20 m ² per litre
Dry time at 25 ⁰ C	15 minutes
VOC content	0 g/L
Flashpoint	Does not burn

First Aid

For safety information or Material Safety Data Sheet call EIC Customer Service on 08 8121 7867.

For emergency please contact 24 hour mobile 0413 075 994.