



# HARDENSEAL

## Lithium Concrete surface densifier

HardenSeal is a premium grade concrete surface densifier which offers easier application, higher activity and better penetration than conventional sodium silicate hardeners resulting in up to 50% improvement in relative performance.

### USE

As a penetrating sealer designed to produce dust free concrete floors. HardenSeal blocks surface pores in concrete floor finishes by depositing C-S-H (Calcium Silicate Hydrate). This improves gloss and surface hardness resulting in better abrasion resistance, lowered dirt retention and improved stain resistance. HardenSeal is particularly recommended for ground concrete finishes where the pore structure of the surface has been opened by the grinding process.

### TYPICAL APPLICATIONS

- Exposed aggregate polished concrete floors in residential construction
- Exposed aggregate concrete floors in retail establishments
- Exposed aggregate concrete floors, front of house in shopping centres
- Anti-dusting sealer in retail bulk warehouses
- Anti-dusting sealer in distribution warehouses
- Anti-dusting sealer in dry processing manufacturing and assembly plants

### PHYSICAL PROPERTIES (@ 25°C, 50%RH)

Solids content	14%
Cure time	Foot Traffic: 1 hour Full Cure: 7 days
Specific gravity	1.1kg/litre
Composition	Lithium silicate based solution with hydrophobic silicone additive.
Typical penetration	Up to 3mm
Coverage (depending on surface porosity)	10-20 sqm/litre
pH (alkalinity)	11

### FEATURES AND BENEFITS

- Penetrating sealer - hardens up to 3mm below the surface
- Durable - acts below the surface and is not subject to surface tracking
- Wear resistant - improves abrasion resistance by up to 500% over untreated surfaces
- Slip resistance - no surface film, maintains slip resistance of original finish
- Solventless - complies with stringent Green Star requirements
- Odourless - does not taint food
- Aesthetic flexibility - can be used together with a range of pre-applied coloured finishes
- Range of gloss levels - dependant upon level of surface grind and subsequent application of polishes
- Vapour permeability - allows the concrete surface to breathe, cannot lift
- Waterproof - reduces water ingress by more than 80%, thereby reducing effects of water borne stains
- Corrosion resistant - does not cause surface alkali-silicate reaction
- High activity - Lithium Silicate has double the activity of Sodium Silicate at the same solids level
- Viscosity - reduced viscosity allows for greater penetration without the need to dilute effectiveness
- Improved coating adhesion - bonding of subsequent surface coatings is improved
- Reduces cost - speeds up diamond grinding and polishing operation

### CHEMICAL & STAIN RESISTANCE

HardenSeal improves the chemical resistance of untreated surfaces by around 25% due to its waterproofing action and reduced porosity. Improved resistance is obtained by further treatment with HardenShine or HYCHEM Hydragard F depending on the finish required. Exposure to strong acids such as greater than 10% acetic and hydrochloric acid is not recommended and the use of alternative systems is suggested.

## APPLICATION GUIDELINES

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### Surface Preparation

Anything which is likely to impede the penetration of HardenSeal must be removed. New concrete is full of water which will prevent penetration, hence new concrete should be allowed to cure for 30 days. Test for the presence of curing membranes and remove if present. Check also for the presence of oil and coatings and remove if present.

Ensure that all traces of cleaning agents are removed with a water rinse. Allow the surface to dry and ensure that there is no remaining surface ponded water. Acid stained concrete must be thoroughly neutralized and rinsed.

If the cement surface paste is to be removed to expose aggregate, grind the surface to achieve a minimum 200grit finish before applying HardenSeal. Further polishing to finer grades is then made easier due to the densification achieved by the prior HardenSeal treatment.

### Application

Apply with a low pressure spray pack, mop or soft bristle push broom. The quantity of material required will vary with porosity of the concrete, surface temperature and prevailing atmospheric conditions. Steel trowelled fresh concrete may take as little as 25 sqm per litre whereas cured ground concrete can absorb as much as 5 to 10 sqm per litre.

Material is applied in an even manner so as not to cause puddles and brush marks. Brush out any puddles that may have formed due to application of excess material or lower absorptivity. It is not necessary to actively work in the product but coverage must be even. Avoid brooming once the surface has started to dry. A white residue may appear in areas where excess material has been applied. This is to be removed using a stiff bristle brush or floor scrubbing machine once the surface has become completely dry. Ensure the applied surface is left wet for 20 minutes. Re-apply if necessary.

### Polishing

The area may be polished once the surface is completely dry. For an enhanced shine and stain protection an additional 1-3 coats of HardenShine polish may be applied.

## PACKAGING

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Available in 20kg

## SHELF LIFE

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12 months or 24 months from date of manufacture, stored under shelter at 25°C in original un-opened container.

### **NOTE: Customer responsibility**

*The technical information and application advice here given is based on the best information available at the time of print. As the information herein is of a general nature, no assumption can be made as to the products suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation.*

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