

# TECHNICAL DATA SHEET

## DENSI-HARD<sup>®</sup> SODIUM SILICATE

### LIQUID CONCRETE DENSIFIER

Professional sodium silicate densifier for superior hardening and dust protection.

#### DESCRIPTION

Densi-Hard<sup>®</sup> Sodium Silicate is a specially formulated product for concrete and terrazzo floors. It helps achieve a hard surface that is easy to grind and polish. Sodium silicates, with their larger molecule size, fill pores more easily, using less product and keeping costs low. This environmentally friendly treatment reduces efflorescence, improves overall abrasion resistance and reduces dusting. It also helps reduce costly wear and damage to diamond abrasives.

- For precast concrete slabs, structures etc.
- Densification, dust proofing, polishing of concrete floors.

#### BENEFITS

- No odour
- Non yellowing
- Increases abrasion resistance comparing to untreated concrete
- Ensures better dust proofing
- Deep penetration

#### KEY APPLICATIONS

- Old & new concrete surfaces to improve abrasion resistance in areas like warehouse, Industries, Polished concrete floors, Commercial and residential areas.
- Can be used for interior or exterior application.

#### TECHNICAL SPECIFICATION

<b>Chemical Type</b>	Sodium Silicate diluted with water
<b>Packing</b>	5 Kg, 20 Kg, 209 Ltr.
<b>Shelf Life</b>	12 months
<b>Storage Parameters</b>	Product to be stored unopened, in original packing, without any damage in dry condition.
<b>Physical Description</b>	Cloudy liquid / Translucent

## TECHNICAL DATA

VOC Content	< 5 g/l
Freeze Point	32°F (0°C)
Density	1.08-1.09 gm/cc
Solid Content	12 to 14 %
pH Value	10-12

## USAGE INFORMATION

Consumption	30–60 sq.ft per Ltr. (This is an approximate figure. It can be different depending on the floor CSP level and porosity of the floor.)						
Ambient Air Temperature	+ 5°C to 40°C						
Relative Humidity	100% max						
Substrate Temperature	+5°C to 40°C						
Application Time	For best results, 2–3 coats are required. There should be a difference of 2–3 hours before application of next coat. Before re-application of coat ensure floor is tack free and completely dry.						
Drying Time	Depending on the room temperature surface can be dry after 2–3 hours of application. For dust proofing and grinding application, waiting time of 12-24 hours is advised.						
Surface Usage After Application	Depending on the temperature treated floor can be used for : <table border="1"><tr><td>After spray application for dust proofing on untreated floor</td><td>After 24 hrs</td></tr><tr><td>After polishing</td><td>Immediate</td></tr><tr><td>Spray application on repair surface</td><td>Light foot movement allowed after complete dry. Complete usage after 24 hrs or after grinding in case required.</td></tr></table>	After spray application for dust proofing on untreated floor	After 24 hrs	After polishing	Immediate	Spray application on repair surface	Light foot movement allowed after complete dry. Complete usage after 24 hrs or after grinding in case required.
After spray application for dust proofing on untreated floor	After 24 hrs						
After polishing	Immediate						
Spray application on repair surface	Light foot movement allowed after complete dry. Complete usage after 24 hrs or after grinding in case required.						

## INFORMATION BASE

This data sheet is made as per lab findings.  
Actual figures/data may vary due to conditions that cannot be controlled.

## SAFETY MEASURE

For safety related information, user is advised to read MSDS (Material Safety Data Sheet).MSDS provides complete information about handling, disposal and storage related precautions.

## IMPORTANT INFORMATION

- Avoid using old/previously used sprayers that are used for spraying other chemicals.
- Do not place product container in direct sunlight. Ensure product is stored in dry cool place before application.
- Do not mix Densi-Hard® Sodium with other chemicals of Surie Porex or other material.
- Wash and clean the equipment/container that is to be used for application/spray before pouring Surie Porex Densi-Hard® Sodium.
- Cover the areas that are highly polished or any objects made with glass, aluminium etc. or wash them immediately to avoid etching.
- Curing time/reaction time can be different/change depending on humidity or weather conditions.
- Don't use Surie Porex Densi-Hard® Sodium on any coating/curing agent pre applied on the surface.
- Before application of Densi-Hard® Sodium ensure floor is completely cleaned, dried, free from any kind of loose material, debris, loose concrete of the surface.
- After application it is advised to check for any leftover area and seen dryspot to get even finish and densification.
- Densi-Hard® Sodium is not meant to hide any kind of floor defects such as staining, excessive wear, or cracks.
- Performance of the product depends on the age, porosity, and humidity level of the floor.

## USAGE INSTRUCTION

### Floor Quality

#### New Casted Concrete Floor

7 to 10 days of curing is advised before application of Densi-Hard® Sodium. Strength of floor/concrete mix depends on the composition of concrete mix. A minimum curing period is required to let product avoid corrosion of the reinforcement.

#### Aged / Old Concrete Floor

Before application ensure floor is completely clean, free from any oil, loose concrete, coatings or any type of paints etc. Floor should be open textured so that the penetration of the Densi-Hard® Sodium is not compromised.

## FLOOR PREPARATION

### Newly Casted Concrete Floors

- Floor should be properly trowelled manually or using a walk-behind trowel machine or ride on trowel for better finish. Curing is required for at least 7–10 days before application of Densi-Hard Sodium.

### Aged / Old Concrete Floors

- Floor should be thoroughly cleaned by using an auto scrubber/single disc machine, or similar machine using a neutral cleaner. Surface must be completely dry before application. All loose dust, coatings, flakes, or similar particles should be removed using a vacuum cleaner or manual brushing.

## IMPORTANT POINTS

Immediately after spraying Surie Porex Densi-Hard® Sodium, the reaction starts with concrete making the surface slightly harder immediately. Maximum hardening effect is achieved after 7 days of treating the untreated concrete.

## FOR DUST PROOFING

### • On Roads / Open Areas

Clean the surface using a high-pressure or scrubbing machine. Ensure no loose particles or debris are present. Spray or pour Densi-Hard® Sodium Silicate evenly on the surface. Allow 3–4 hours drying time before use.

- **On Precast**

Make sure before application of Densi-Hard® Sodium surface is clean no loose cement or dust is visible For best results, do a mild grinding using Diamond Resin Pads 100/200 grit. spray Densi-Hard® Sodium evenly. Allow 5–6 hours drying time before usage Ensure no dry patches are visible after spray application.

## FOR CONCRETE POLISHING

### On Precast

- Use metal 120 – 200 for surface preparation and loose particle removal.
- If surface is uneven use metal grit 36 - 60 for if surface is not very uneven level correction.
- Use resin pad 60-100-200 for scratch removal and base preparation for Densi-Hard® Sodium.
- Pour / spray Densi-Hard® and allow to dry for 10–12 hours.
- Use Resin Pad – 400 / 800 / 1500 / 3000 to get a high gloss finish.
- Use Surie Porex stain protector for added crystal gloss finish.
- Buff with white pad using burnishing machine.

## FOR REPAIRING OLD SURFACE / FINE CRACK

1. Clean the floor.
2. Make sure the crack to be repaired is free from any loose particles.
3. Mix the repair material / follow the manufacturer guidelines.
4. Spray Densi-Hard® Marble on the affected area. Leave for 10–12 hours before grinding.

## MAINTENANCE

Use Surie Porex Floor Cleaner Neutral with auto scrubber or single disc machine. Avoid using harsh chemical or acid based cleaner for cleaning as it can damage the floor surface, causing dusting etc.