

Technical Data Sheet

FS-STELLA-HARD

Liquid Floor Hardener & Densifier

DESCRIPTION

FloorSafe™ FS-STELLA-HARD is a high-performance, water-based silicate liquid floor densifier designed for seamless, durable, and high-productivity industrial flooring applications. Applied to freshly trowelled or existing concrete surfaces, it penetrates deeply into the concrete matrix and initiates a chemical reaction with free calcium hydroxide (lime) to produce calcium silicate hydrate, permanently filling the surface pores, hardening the concrete, and eliminating dusting. It is specially formulated for use with ride-on trowel systems and provides a matte to polished finish with enhanced surface hardness.

USES

- Industrial warehouses and manufacturing plants
- Distribution centres and logistics floors
- Parking decks and garages
- Retail stores and shopping malls
- Airports and civic centres
- Food processing and pharmaceutical facilities
- Any concrete floor requiring dust-proofing, hardening, and densification

FEATURES

- High productivity - seamless application with ride-on trowel system for large floor areas
- Faster execution - ready for traffic in as little as 1–2 hours after application
- Seamless finish - matte to polished surface finish options
- Enhanced surface hardness - permanent densification increases abrasion resistance by up to 39%
- Dust-proofs concrete - eliminates dusting and pitting permanently
- Reduces water and moisture penetration
- Improves chemical and petroleum resistance
- Water based - zero VOC, non-flammable, safe for indoor use
- Ready to use from container - no mixing required
- Compatible with shake-on floor hardeners
- 5-year surface performance warranty

TECHNICAL DATA

Property	Value	Test Method
Product Type	Silicate-based Liquid Floor Densifier	—

Property	Value	Test Method
Appearance	Clear, colourless liquid	Visual
Base	Water-based silicate solution	—
Application Method	Ride-on Trowel System / Low pressure sprayer	—
Finish Options	Matte to Polished Finish	—
Productivity	High-speed execution	—
Durability	Enhanced Surface Hardness	—
VOC Content	Zero VOC	—
Flammability	Non-flammable	—
Ready for Traffic	1 – 2 hours after application	—
Full Performance	Increases over time with traffic	—
Warranty	5 years surface performance	—
Shelf Life	12 months in original sealed container	—

COVERAGE ESTIMATES

Surface Type	Coverage per Litre
Normal density concrete (machine trowelled)	4 – 6 m ² per litre
High porosity / open concrete	2 – 4 m ² per litre
Dense / polished concrete	6 – 8 m ² per litre

Note: Coverage varies depending on concrete porosity, age, and surface condition. Additional product may be required on highly porous surfaces.

PACKAGING

Available in: 50L & 200L containers

APPLICATION INSTRUCTIONS

Surface Preparation:

- Surface must be clean and free from dust, laitance, curing agents, coatings, oil, grease, and debris that will reduce penetration.
- For new concrete: apply after final trowelling and/or joint cutting while concrete is still fresh.
- For existing concrete: remove all surface coatings. Clean the surface with a stiff broom or low-pressure water wash and allow to dry.
- FloorSafe™ Stella Hard can be applied to slightly damp surfaces — remove all standing water before application.

**Application:**

1. Apply FloorSafe™ Stella Hard using a low-pressure sprayer or ride-on applicator system. Do not use airless sprayers.
2. Spread the product evenly with a soft broom, microfibre applicator, or squeegee to ensure uniform coverage and eliminate puddles.
3. Keep the surface wet with the product for 15–30 minutes to allow full penetration into the concrete pores.
4. On highly porous surfaces that dry quickly, apply additional product to maintain a wet film during the penetration period.
5. After the penetration period, spread any remaining product evenly. Do not allow excess product to dry on the surface.
6. Allow treated surface to dry completely. Remove any white powdery residue with a stiff broom or floor scrubbing machine.
7. To enhance surface sheen, buff or burnish the dry surface with an orbital floor machine or high-speed propane burnishing machine.

Note: Do not mix with other curing compounds or sealers. Scrubbing during application is not necessary.

MAINTENANCE

Regular cleaning with a neutral pH detergent and scrubbing machine is recommended. The surface will continue to harden and improve its sheen over time with regular traffic and cleaning. Do not use acidic or citrus-based cleaners on treated surfaces.

STORAGE & SHELF LIFE

- Shelf Life: 12 months in original sealed containers
- Store in cool, dry conditions away from direct sunlight and frost
- Do not allow to freeze — if frozen, thaw and agitate before use
- Agitate before use if product has been stored for more than 12 months

PRECAUTIONS

- Avoid contact with eyes and mucous membranes
- Wear gloves and eye protection during application
- In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice
- Do not ingest — drink large amounts of milk or water and consult a physician immediately
- Comply with all local regulations for proper disposal

Refer to MSDS for full safety information.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith. Our company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of work, we accept no liability for any loss or damage which may arise as a result thereof.