

TECHNICAL DATA FOR BS FLOORDENSE

Concrete Floor Densifier, Finishing Aid, Dust Proofing & Polishing System

Description for BS FloorDense

BS FloorDense is a clear chloride free, inorganic, waterborne, hardening or densifying treatment for the concrete floor. It may be applied to freshly cast concrete floor or to an existing concrete floor.

BS FloorDense is based on advanced Nano Particles using Inorganic Chemistry, that penetrate in to the micro capillaries of the concrete substrate sealing them and preventing release of fine dust from the concrete floor.

Advantages of BS FloorDense

- Stops or Reduces the fine dust getting released from the concrete floor.
- Improves abrasion resistance of the concrete floor
- Allows the concrete surface to breath
- May be used as curing aid for fresh concrete
- Enables the concrete floor to have natural sheen for lifetime
- Allows grinding and polishing of the concrete floor

Working of BS FloorDense

The concrete curing process results in release of lime particles as a by-product due to the hydration activity. These lime particles do not adhere into the concrete matrix and start to get released as fine dust on the surface of the concrete floor. These fine particles keep on coming out even long after concrete is hard dry and dust is visible even after regular cleaning of the surface.

Slowly this phenomenon result in pores appearing on the concrete surface. These pores cause easy staining and over time start to degrade the top surface of the concrete floor as it becomes weak due to loose lime

particles leaving the concrete structure. BS FloorDense is developed using latest technology with Nano particles based on inorganic chemistry. BS FloorDense reacts with these free lime particles and form hard glass like crystalline formations in the concrete strata.

This action of generation of hard crystalline elements results prevention of dusting, closing the porosity in the concrete structure, stabilising the strata increasing the hardness of the concrete floor.

The treated surface becomes hard enough for grinding and polishing operations using suitable polishing systems.

Concrete floors treated with BS FloorDense achieve smooth finish with sating to high reflective surfaces suitable for commercial, warehousing and industrial uses.

Instructions for use

Preparing the Surface:

For freshly cast concrete: BS FloorDense has to be applied by low pressure hand sprayer immediately after completing the final finishing operation of Ride on Trowel. If the cast surface has any form oil or any detrimental compound it has to be removed first.

If Dry Shake floor hardener is used, BS FloorDense can be applied by a low pressure sprayer before dry shake floor hardener is sprinkled on the surface and then the surface can be trowelled.

For existing concrete floor: For concrete floors older than 28 days, clear and remove all loose dust and debris from the concrete floor. Ensure there is no oil or such

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material in the floor surface. Clean mechanically or chemically all such substances.

Conduct repairs to all cracks and potholes using repairing agent such as BS Smartbond 100. Ensure that the surface is sound and treatable with BS FloorDense.

After repairs are cured use pressure water cleaning without soap on the surface to clear out the complete surface and make it ready for treatment.

Dry grinding is recommended to abrade the surface slightly and open the pores in the concrete surface. Ensure that surface is dry before application of BS FloorDense

Best Practices for application of BS FloorDense

BS FloorDense doesn't form a film on the concrete surface instead it has to saturate in the concrete surface for best results.

Application by using a mechanical sprayer has to be done completely saturate the surface of concrete floor using following methods:

For fresh Concrete: Use low pressure sprayer or hand sprayer to apply BS FloorDense sprayer after completing final finishing operations with Ride on Trowel. For best performance, apply BS FloorDense on the fresh concrete as soon as it can take foot traffic.

Important: Keep the entire surface wet for 30 minutes by spraying BS FloorDense or by Wiping and shifting extra material puddled on the surface to saturate dry spots. Ensure BS FloorDense doesn't dries out before 30 minutes by constantly spraying and wiping it over the whole surface.

Once BS FloorDense starts to go into the surface, sprinkle the surface with little water to help further penetration. After BS FloorDense starts to dry a second time, flood the surface with water and wipe out the water mixed with excess material using a squeegee.

For existing Concrete Floor:

Spray and apply the BS FloorDense saturating the concrete floor by low pressure sprayer or wiper.

If dry spots start to appear on the concrete surface, shift the puddled material from other area to dry spots using wiper. Ensure treated surface is saturated for a period of 35 to 40 minutes.

Finishing may be done as per following two options as per requirement.

1. Option A: Simple method, if majority of BS FloorDense is absorbed in the concrete surface, after 35 to 40 minutes flush out all the excess material with plain water. Use wiper to drag out to all cleaning water.
2. Option B: Buffing it in, use a floor buffing machine with a non-aggressive pads to "work" in BS FloorDense in to the concrete surface.

Drying Time

BS FloorDense penetrates in approximately 30 to 60 minutes for each application, depending on climatic conditions and site factors. Each application of BS FloorDense must penetrate fully before second application.

Allow 24 hours' time before starting use of the floor treated with BS FloorDense.

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For Sheen Finishing: Dry buffing after 18 hours of application will make the floor have sheen and smooth appearance. This sheen will improve further 3 to 6 months depending on site use conditions and sealing process of BS FloorDense system.

Essential use Data

Floor Finished Surface	Coverage Sqm / Litre
Hard Trowel Finish	6 to 8
Broom Finish	5 to 7
Rough Finish	4 to 6
Pack Size	20 Kg Spout Drum
Shelf Life / Best Before	24 Months from Mfg. Date*

Properties of BS FloorDense / Li

Appearance	Clear / Translucent Liquid
Increase in abrasion resistance, over control (ASTM C501, H22 wheel)	> 40% at 7 Days
Increase in moisture retention, over control (in freshly cast concrete)	> 30%
Increase of compressive strength, over control (rebound hammer test)	> 15% at 7 Days
Increase in pull-off bond strength, over control (ASTM D4541)	> 15% at 7 Days
Chloride Content	< 0.2%

Storage Conditions*

Store under cover and protect from extreme temperature. Failure to comply with the recommended storage conditions will result in premature deterioration of the product or packaging.

Health & Safety

1. Avoid any contact of material with face, eyes mouth, skin and food items exposed to product vapour during application.
2. Treat splashes on eyes and skin immediately with water.
3. If ingested, provide urgent medical attention.
4. Close the containers after use, ensure lid is tightly closed
5. Do not reuse empty containers for storing edible items.
6. MSDS may be available on request.

Please Note

Technical Literature and Data Sheets are under constant update. Please confirm for the most recent issue with our team. Technical advice if provided, does not mean supervision of application.

No warranty is given or implied for any advice or suggestions to end user by company staff, distributor or seller as the conditions of site and labour application skills are beyond our control.