

ShaliFloor[®] M DH

Non-Oxidizing Heavy Duty Metallic Floor Hardener



STP Limited

Description

ShaliFloor[®] M DH (formerly known as Shalimar Diamond Hard) is a single component, pre-blended, metallic floor hardener consisting of cleaned, graded, non-oxidizing metallic aggregates, pigments and admixtures.

ShaliFloor[®] M DH provides a dense and tough surface capable of withstanding abrasion and impact loading, making it suitable for industrial and other heavy duty floors.

ShaliFloor[®] M DH has been specially formulated with non-rusting aggregate for increased abrasion resistance in areas subject to frequent moisture or water exposure.

Characteristics

Abrasion Resistance	Treated concrete will give 400 – 500 % better abrasion resistance than control concrete	Compressive strength, 28 days, Mpa	69
		Physical Appearance	Cementitious grey powder
		Layer thickness, mm	2.5 to 3.0
		Density, kg / m ³	2500
		Ambient Air temperature, °C	5 - 40
		Substrate temperature, °C	5 - 40
Theoretical Coverage*, kg/M ²		Relative air humidity, %	
• Normal traffic	3 – 5	• Minimum	30
• Heavy traffic	6 - 12	• Maximum	98

* Depending upon surface condition.

Application

- Industrial Floors / Warehouses / Machine Shops.
- Processing Plants like fertilizer / Petrochemical units.
- Vehicle maintenance floors.
- Loading Docks.
- Main, High Traffic Aisle ways / Gangways.
- Breweries & Bottling plants.
- Joint shoulders reinforcement.

Advantages

- Maintenance free, dust proof. Only regular sweeping is required.
- Excellent wear / impact resistance.
- Non-staining, non-corroding.
- Cost effective, long life floor.
- Available in range of colours.
- Dense surface resists penetration of oil, grease etc.

Application Methodology

➤ Surface Requirement

- Ensure that base concrete has minimum cement level of 300 kg of cement per cubic meter of concrete and a slump @ 50 – 75 mm

- Ensure that compressive strength of concrete is 25 Mpa minimal.
- Ensure that the thickness of surface is 15 cm minimum.
- Air entrant concrete is not suitable for dry shake hardener application.
- Use float or darby to level surface. To remove excess / bleeding water, drag surface with a burlap or sack.
- After the concrete has stiffened somewhat, open the surface by floating with hand wood or power float.
- Ensure construction joints, expansion joints and floor joints are saw-cut only after 24 hours. When the slab has hardened, fill the joint with ShaliSeal PS.

➤ Application of Material

- Remove bleed water of concrete before application of **ShaliFloor® M DH**.
- Broadcast **ShaliFloor® M DH** as per the doses uniformly over the SSD conditioned surface.
- For higher doses of application of **ShaliFloor® M DH**, two stage application is to be followed dividing the desired quantity in the ratio of 50 : 50. Allow the first shake to remain unworked on the surface, until it has absorbed moisture and is of uniform in colour.
- Second Stage : Immediately after first broadcast of **ShaliFloor® M DH**, apply second broadcast at right angles to the first one, making application to the edges first.
- Use a low rpm mechanical trowel, held perfectly flat for compaction. If parts of the surface come loose or if the laitance rises, please allow concrete to harden till a thump pressed hard on to the surface leaves a print of about 3 – 5 mm depth.
- Never add water to the surface for ease of troweling.
- Smoothing is to be done as the initial set is achieved with the same trowel machine running a low speed quipped with metal smoothing blades set at minimum angle.
- If required, any final smoothing should be performed later with the machine running at higher speed.
- **ShaliFloor® M DH** can be used in conjunction with vacuum dewatered concrete at maximum of 5 kg / m² spread rate.
- Cure the broadcasted **ShaliFloor® M DH** floor with ShaliCure PA.
- Alternatively use water ponding method or polyethene sheeting.

Limitation

- The use of supplementary cementitious materials are not recommended for use with a dry shake hardener.
- Proper curing and sealing is required.
- Do not apply **ShaliFloor® M DH** during strong wind or extreme dry weather.
- Do not use concrete where some cement has been replaced by fly ash, as this makes the mix sticky and less workable.
- Variation in concrete characteristics such as water content and cement quality may lead to slight colour variations.
- Dry shake hardeners give a finish to concrete with some colour variation across the floor due to the natural variability of the concrete onto which they are applied.
- To ensure optimum colour consistency, it is essential that the floor laying operation is as clean and protect from the environment as possible.
- Color variation during the drying out period is normal.
- Every effort must be made to ensure an even application of **ShaliFloor® M DH**. Correct timing and troweling techniques are essential.
- Saw the joints as soon as possible without spalling the concrete.

Cleaning & Maintenance

Clean tools and equipment with water before the material hardens

Health & Safety

- Avoid contact with skin / eyes, and avoid swallowing.

- Ensure adequate ventilation and avoid inhalation of vapour.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

Packing

Available in 30 kg bag.

Storage

Store in a cool dry place, under shed, away from heat.

Shelf Life

12 months in original unopened sealed condition.



STP Limited
Enhancing Structures' Life

Product Range

- Waterproofing & Insulation ■ Road Surfacing
- Sealants & Adhesives ■ Pipeline Coatings
- Protective/Anti-Corrosion Coatings ■ Epoxy and Flooring
- Grouts and Admixtures (GARA)
- RestoFix - Repair/Rehabilitation ■ Other Construction Chemicals



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