

TECHNICAL DATA SHEET



NMF

Non Metallic Floor Hardener

(Ref. MBPL / TDS / NMF / 0524)

❖ Product Description

NMF (Non Metallic Floor Hardener) is a ready to use, dry shake, non-metallic floor hardener based on very high quality natural hard non-metallic aggregates & special additives. It creates smooth and dense surface with high abrasion and wear resistance. It renders tough, wear resistant, dust free, anti-skid, long lasting and maintenance free floors. It bonds monolithically to the base concrete and is suitable for existing as well as new floors

❖ Special Features

- Single component, ready to use product
- **ASTM C 109 / IS 1237** compliance
- Non metallic & rust free
- Generates monolithic bond with base concrete
- High abrasion and wear resistance
- Generate impact resistant floor
- Increase resistance to oil and grease



❖ Applications / Usage

- Industrial and commercial warehouses
- Industrial workshops and service stations
- Logistics parks
- Basement and parking areas
- Concrete roads & other concrete floors
- Shopping malls, halls & corridors
- Loading / Unloading platforms & Garrages
- Restaurants, Museums & Public areas

❖ Advantages

- Hardwearing & dust proof toppings
- Anti-skid & Anti-slip in case of spillages
- Non-rusting & therefore trouble free
- Resistant to petrol, diesel & vegetable oils
- Abrasion resistant is twice as good as normal concrete
- Good water proofing properties, hence suitable for rooms and exteriors that are constantly wet
- Increases strength and impact resistance
- Substantial increase in service life, thus economical
- Extremely low shrinkage & high abrasion resistance
- Facilitate easy cleaning

❖ Suitable Substrates

- Wet concrete floors
- Residential areas
- Commercial areas
- All types of cementitious screeds

❖ Coverage

Application	Consumption
Light Traffic	3.0 - 3.5 sq. ft. / kg
Medium Traffic	2.0 - 2.5 sq. ft. / kg
Heavy Duty Traffic	1.5 - 1.8 sq. ft. / kg

- Above results are as per standard laboratory conditions
- Coverage may vary depending on trowel notch size, substrate smoothness and absorption

❖ Packing

- Available in **25 kg.**

❖ Shelf Life

- Factory sealed packs are best before 12 months from the date of manufacturing in unopened condition and stored in cool & dry area

❖ How to Apply

Surface Preparation

- The concrete base/slab should be minimum 15 cm thick and finished as per the standard concrete construction practice
- The concrete with a minimum water /cement ratio (W/C ratio less than 0.50) consistent with the production of a fully compacted slab. Concrete should have minimum cement content of ($> 350 \text{ kg/m}^3$) to achieve minimum compressive strength of 25 N/mm^2 has on-site slump of 80-100mm is required
- The base concrete is ready as soon as it stiffest to the level when thumb impressions on to the surface level an imprint of about 3-5mm.
- Any bleed water still present should be removed or it should be evaporated before sprinkling NMF

Application

- Time of MYMIX NMF application is critical. Applying NMF dry shake BEFORE or AFTER the proper application time can affect the quality of the final finish of concrete surface
- If MYMIX NMF dry shake Hardener is applied too early on wet concrete surface, it will absorb excess water and sink to the bottom. If NMF dry shake application is too delayed, no moisture available from the base concrete surface to bond and hydrate NMF product on the surface
- NMF Floor Hardener dry mix is usually applied in two stages
- The concrete / compensating under screed base should be free from excess water & sufficiently, hardened to allow light foot traffic
- Two-third (about 60-70%) of the dry mix should be sprinkled evenly by hand or scoop horizontally and once the material becomes evenly dark, it is to be floated by wooden float or mechanical floating
- Immediately, thereafter the remaining one-third (30-40%) of the dry mix should be evenly sprinkled in the similar manner vertically and should be spread evenly
- While floating; the surface should not be over worked
- Either mechanical or manual floating can be used depending on area to be floated & the required finish
- Use a power trowelling machine to make the final finish. The weight of power float should not be less than 60kg. Particular attention should be paid to edges & corners to ensure full compaction
- Final troweled floor surface should be cured with conventional curing methods

Curing

- The surface need to be protected from rapid moisture loss immediately after final levelling
- Moist curing should be continued for at least 48 hours (2 days) for light vehicle traffic
- Curing should be done for atleast 7 days

❖ Notes on Application / Limitations

- After application do not keep concrete surface exposed to water & protect it from rain
- The application of dry shake should not carried out in windy or in dry condition

❖ Technical Data

Application Properties

(Temperature : 23-27 °C & Relative Humidity : 55%)

Testing Parameters	Result	Testing Parameters	Result
Colour	Grey (Powder)	Ready for use - Foot traffic	24 hours
Temperature Resistance	-10 to 100 °C	Ready for use - Fully serviceable	7 days

Application	Consumption	Layer Thickness (Approx.)	Abrasion Resistance / Wear Resistance (IS 1237)
Light Traffic	3.0 - 3.5 sq. ft. / kg	1.5 - 2.0 mm	3.5 - 4.0 mm wear loss
Medium Traffic	2.0 - 2.5 sq. ft. / kg	2.5 - 3.0 mm	2.3 - 3.5 mm wear loss
Heavy Duty Traffic	1.5 - 1.8 sq. ft. / kg	3.5 - 4.0 mm	1.7 - 2.0 mm wear loss

Testing Parameters	Test Method	Typical Results
Compressive Strength (10-12 % Water)	—	—
After 1 day	ASTM C 109	> 15 Mpa
After 7 days	ASTM C 109	> 35 Mpa
Surface Hardness	Mohs Scale	> 7

❖ Standards Followed

- ASTM C 109
- IS 1237

❖ Precautions

- Keep out of reach of children
- Wear suitable protective cloths, respirator and gloves
- In case of contact with skin / eyes, wash immediately with plenty of water & seek medical help

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