

NIPPON PAINT HARDTOP
Updated Jan'23
Description:

Nippon Paint HardTop is a monolithic non-metallic factory blended dry shake floor hardener comprised of rust-free hardwearing natural aggregates, binder and admixtures. It is designed to use during concrete casting and cure monolithically to form a dense and hard surface, increasing the hardwearing and abrasion resistance of the concrete floor surface.

Uses:

Nippon Paint HardTop is ideally suited for all industrial areas subject to heavy traffic such as:

- Car park deck and ramp
- Loading and unloading bays
- Warehouse
- Workshop
- Machine shop
- Trucking lane
- Spillway

Advantages:

- Increases hardness of concrete floor surface
- Enhances abrasion resistance of concrete floor surface
- Forms a monolithic bond with concrete
- Easy and economical to apply
- Good adhesion to wet surfaces and green concrete
- Odorless and Non-toxic

Product Type	Product Grade	Pack Size	Finishing	Color	Substrate
Natural Aggregate Dry Shake Floor Hardener	Nippon Paint HardTop	25kg/bag	Cementitious	Natural	Concrete

Typical Technical Data

Properties	Nippon Paint HardTop	Test Standards
Mohs Hardness (aggregate)	>7	MoHS Hardness
Specific Gravity	>2.6	In House

*All values given are subject to 5-10% tolerance

Application Method
Substrate Preparation
Concrete Substrate

The base concrete should have a minimum cement content of 300kg/m³. The concrete mix should be designed to minimize segregation and bleeding. The ratio of water: cement (w/c) is required less than 0.55. The concrete should have a slump between 75 and 125mm. The base concrete should be laid and compacted in accordance with good concrete practice. An accurate finished profile and minimum laitance build-up should be ensured. Particular attention should be painted to bay edges and corners to ensure full compaction. Vacuum dewatering is not recommended when w/c ratios of less than 0.55 have been used.

Application

It is recommended that the floor be marked off into bays of the known area. Sufficient material should then be laid out to meet the required spread rates. Application of **Nippon Paint HardTop** can begin when the base concrete has stiffened to the point when light foot traffic leaves an imprint of about 3mm and its bleed water should now have majority evaporated.

Nippon Paint HardTop is applied at two application stages, the first application stage is using 1/2 to 2/3 of the material required for the eventual end use. It is evenly broadcast onto the concrete surface. When the material becomes uniformly dark by the absorption of moisture from the concrete. The floor can be floated with wooden or a power float. The floor surface should be avoided from being over-floated.

Immediately after floating, the remaining portion of the material is broadcast evenly over the surface. Again, when the material is turned dark after it absorbs moisture, the floor can be floated in the same way as before. The final finishing of the floor using the blades of a power float can be carried out when the floor has stiffened sufficiently so that damage will not be caused.

Timing of Application

The timing of the application of the **Nippon Paint HardTop** is critical and important. Too early to apply causes excess water will be absorbed and the resultant floor surface will be lower in strength and subject to dusting. Also, the dense aggregates of material will sink and be lost from the surface. Too late to apply will cause insufficient moisture available to completely hydrate the **Nippon Paint HardTop**. And thus, crazing and pitting of the surface are likely to occur.

Bay Edges

Immediately after the base concrete is levelled, sprinkle **Nippon Paint HardTop** powder on a strip 100-150mm wide along the bay edges. Steel trowel into the surface. Areas, where saw-cut transverse control joints are located, can also be re-treated in this manner.

Curing

It is recommended to use a curing compound such as **Nippon Paint Cure P** or alternatively use a polyethene sheet after **Nippon Paint HardTop** is finished applied and floated.

Recommended Dosage

Coverage

Dry mix **Nippon Paint HardTop** is applied at a different rate per m² to provide floor surface for different usage

General vehicular traffic : **Nippon Paint HardTop** at 4.0kg/m²

Heavy vehicular traffic : **Nippon Paint HardTop** at 6.0kg/m²

Storage

This product should be 24 months of shelf life when stored in the original bag in shaded and dry conditions.

Cleaning

Clean up equipment or tools with clean water immediately after use.

Safety Precautions

- Portland cement is alkaline when in contact with water, avoid prolonged contact with the skin
- Always use protective hand gloves, goggles and dust mask when handling or application
- Any eye contamination should be washed immediately with plenty of clean water and seek medical advice
- Dispose off any waste in accordance with the appropriate Environment Quality Regulations

Note

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. We reserve the right to alter the given without prior notice