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NANTEN HM W



Product description

2-component, M1-classified, water vapor permeable, trowel-applied epoxy coating.

- Water-based epoxy resin for trowel-applied coating systems on old and new concrete floors
- Resistant to water, common cleaning agents, salts, and, under temporary exposure, diluted acids and alkalis
- Low-emission

Applications

- Areas subject to medium-duty wear
- Ground-supported floors

Instructions

Base requirements and coating conditions

The concrete strength class must be at least C25/30 with a wear resistance class of 3. The relative humidity of the concrete must be below 98%, and the surface temperature must be at least +3°C above the dew point. During application and curing, the temperature of the air, surface, and coating must remain above +15°C, and the relative humidity of the air must be below 80%.

New concrete floor

Cement laitance and any uncured cement must be removed by surface grinding or shot blasting. All loose and adhesion-reducing material must be removed, and the surface must be thoroughly vacuumed to remove all cement dust.

Old concrete floor

Cement laitance and deteriorated concrete must be removed by grinding or shot blasting. All loose and adhesion-reducing material must be removed, and the surface must be thoroughly vacuumed. Dirty floors should be washed and rinsed with a synthetic detergent before any further surface preparation. Any existing old paint film must be completely removed from the substrate.

Priming

Priming is done by rolling a Nanten HM W mixture thinned with warm water (approx. +30°C). Adhesion sand is broadcast onto the primer film as work progresses, to prepare for subsequent coating. Once the primer has cured, any excess sand is removed by brushing and vacuuming.

Patching

Small holes and cracks are cleaned and filled with an epoxy putty made of for example, HM W Epoxy and fine filler sand.

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Mixing

Pre-mix Part A and Part B of HM W Epoxy in their own containers. Estimate the required amount of mixture based on the size of the area to be treated and the working time of the product. Combine the components in the correct volume ratio and mix thoroughly with a low-speed mechanical mixer for approximately two minutes, avoiding air entrapment in the mixture. Add the required amount of the selected sand blend to the mixture while mixing, and continue until the mixture is uniform, making sure to reach the corners of the mixing container. For priming, add water as the final component after mixing and continue mixing for approximately 2 minutes.

Mixing ratio

Part A: 1 parts by volume, Part B: 2 part by volume

Coverage

At 3 mm film thickness
Resin consumption approx. 1.0 l/m^2
For priming: 0.2–0.3 l/m^2
For top coating: 0.3–0.35 l/m^2
Color sand consumption approx. 5 kg/m^2

Coating

The mixed material is poured onto the floor in a bead and spread with a notched trowel to the desired thickness. Application is carried out in strips, allowing finishing from untreated areas of the floor. The coating material is compacted with a steel trowel to achieve a smooth surface.

Top coating

The compacted trowel-applied coating is sealed by rolling on Nanten HM W Epoxy. The topcoat is typically applied in two coats as thin films.

Coved skirtings

Coved skirtings are made using the same trowel-applied mortar, stiffened with thickening fiber (Sylothix) to facilitate application.
Note! Inadequate mixing of the epoxy coating may lead to uneven curing, and an incorrect mixing ratio may result in the coating not curing at all. Do not scrape material from the sides of the container onto the floor.

Waste handling

Storage and handling of waste
See the separate storage and disposal instructions https://www.fescon.fi/en/material-bank

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Technical information

Colour	The color of the coating is determined by the selected color sand or color sand blend (Nanten color chart)
Gloss group	Glossy (binder)
Package size	Available in 18-litre sets (6 l + 12 l) or with both components in 200 l drums
Storage	+5°C...+25°C, maximum shelf life 12 months. Store in a warm environment, sealed in original containers.
Mixing time	Approx. two minutes
Density	1.04 kg/l
Usage temperature	+15°C...+25°C
Usage time	Poured onto the floor: approx. 30 minutes. Working time decreases as temperature rises.
Drying time	Touch-dry in 5 h (+25°C) and 9 h (+15°C). Resists light traffic after approx. 12 h (+25°C) and approx. 24 h (+15°C). Fully cured in 7-14 days.
Adhesion strength	1.5 N/mm^2
Reaction to fire	Bfl-S1
Water vapour permeability	Class I
Relative air humidity	Below 80% during application and curing of the coating
Solids content	Binder approx. 46% by volume
Chemical resistance	Class II
Thinner	For priming, dilute with warm water by approx. 10%. Do not dilute the product when used as a binder in the coating mortar or as a topcoat.
Method of application	Applied with a notched trowel and finished with a steel trowel or mechanically with a power trowel. For priming and top coating, use a suitable roller.
VOC content	< 30 g/l (ready-to-use mixture)EU VOC 2004/42/EC (Cat A/j) max. 140 g/l (2010)
Washing tools	Clean with water or synthetic detergent
GWP A1 raw material	3,16
GWP A2 transport	0,12
GWP A3 manufacturing	1,02
GWP A1-A3	4,30

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GWP A4 transport	0,0341
GWP A5 assembly	0,104
GWP unit	kg CO2e/kg
Method for calculating the GWP value	EPD

Remember to consult the Maintenance Instructions for Coated Floors and the product Safety Data Sheet on our website at www.fescon.fi, or request a copy by calling +358 9 274 7970. Although the technical details provided in this product description are based on our best knowledge and experience, the information above should always be regarded as indicative. The user is responsible for verifying the suitability of the product for the intended application. If the instructions are not followed, the user assumes full responsibility for any resulting damage or consequences. Limitation of liability, product use notes and restrictions: Please familiarize yourself with Fescon Oy's general terms of delivery and the design and work instructions related to the product.