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NANTEN HM BIO



Product description

2-component, solvent-free, rubbable epoxy coating. Good mechanical resistance.

- The coating is very resistant to grease, oils, fuels, salt, detergents and temporary loads of mild acids and bases. In areas subject to thermal shock/steam washing, minimum thickness of the rubbed coating must be 6 mm.
- Used for the priming of dry concrete bases and as binder and surface varnish for rubbable epoxy coatings.

Applications

- Production and storage facilities of the food industry that are subject to hard wear
- Industrial kitchens
- Process industry facilities

Instructions

Base requirements and coating conditions

The strength class of the concrete must be at least C25/30 and the wear resistance class 3. The relative humidity of the concrete must be below 95% and the surface temperature must be at least +3^{0}C above dewpoint. During the drying of the coating, the temperature of the ambient air, the surface and the coating must be over +15^{0}C and relative humidity must be below 80%.

New concrete floor

Laitance and any uncured cement are removed by either surface grinding or shot blasting. All loose material that could negatively affect adhesion is removed, and cement dust is carefully vacuum-cleaned.

Old concrete floor

Laitance and damaged concrete are removed by grinding or shot blasting. All loose material that could negatively affect adhesion is removed, and the base is carefully vacuum-cleaned. Dirty floors should be washed and rinsed with synthetic detergent before performing any other base treatment work. Any old coat is removed completely.

Priming

Priming is done with Nanten HM Bio. The primer must close all the pores in the concrete, so that a sealed and intact membrane is formed on top of the surface. The primer is covered with primer sand as the work progresses.

Patching work

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Small cavities and cracks are cleaned and filled with e.g. epoxy paste mixed from Nanten HM Bio and fine back sand. Larger and wider overfills, straightening and slopes can be made with a compound made of HM Bio and back sand (0.7–1.2 mm).

Mixing

Premix component A and component B of HM Bio Epoxy in separate containers, estimate the required amount of compound, taking into account the size of the area to be treated and application time of the compound. Mix the components together in the right mixing ratio, mix with a slow-speed mixer for approximately two minutes, avoid mixing air into the compound. Keep mixing and add the required amount of selected Nanten colour sand or colour sand mix, continue mixing for about one minute, make sure to scrape the corners of the container.

Mixing ratio

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

Spreading rate

4 mm membrane thickness
Resin consumption in rubbed coating approx. 1.3 l/m^2
Approx. 0.2-0.3 l/m^2 in priming
Approx. 0.35-0.45 l/m^2 in surface varnishing
Approx. 7 kg of back sand /m^2

Coating

The mixed paste is poured onto the floor in a continuous flow and then applied at the desired thickness with an adjustable trowel. The application is done in lanes, so that the surface can be finished from the untreated floor. After application, the paste is sealed into a flat surface either by hand with a steel trowel or by rubbing it mechanically.

Surface varnishing

After the coating has been rubbed sealed and dried, it must be varnished with thinned Nanten HM Bio Epoxy. We recommend applying the varnish twice to make the surface hygienic and easy to maintain.

Skirting boards

Skirting boards are made with epoxy rubbing paste, but thickening agent (Sylothix) is added to the paste to make it easier to work. The skirting boards can be made 100 mm high, for example.

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 colour of the coating will depend on the Nanten colour sand or colour sand mix
Package size	Part A in a 10 l metal container, Part B in a 5 l plastic container, or both in 200 l drums
Storage	+5°C to +25°C, shelf life up to 6 months. Must be stored in a warm location in tightly sealed original containers.
Mixing time	Approx. two minutes
Density	1.1 kg/l
Usage temperature	+15°C...+25°C
Usage time	Poured onto the floor: approx. 20–30 minutes. Working time decreases as temperature rises.
Drying time	Touch-dry in 7 h (+25°C) and 14 h (+15°C). Resists light traffic after approx. 12 h (+25°C) and 24 h (+15°C). Fully cured in 7 days.
Adhesion strength	1.5 N/mm^2
Reaction to fire	Bfl-S1
Relative air humidity	Below 80% during application and curing of the coating
Chemical resistance	Class II
Thinner	In priming, 10–30 % by volume with Nanten A Epoxy Thinner. The resin is not thinned in rubbing coating. In surface varnishing, 20–40 % by volume with Nanten A Epoxy Thinner.
Method of application	Application with adjustable trowel and finishing with steel trowel or mechanically with a finishing machine. A suitable roller is used for priming and surface varnishing.
VOC content	150 g/l (ready-to-use mixture)EU VOC 2004/42/ EC (Cat A/j) max. 500 g/l (2010)
GWP A1 raw material	5.33
GWP A2 transport	0.205
GWP A3 manufacturing	0.409
GWP A1-A3	5.95
GWP A4 transport	0.0315
GWP A5 assembly	0.121
GWP unit	kg CO2e/kg

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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.