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NANTEN HM BIO AR



Product description

2-component, solvent-free, trowel-applied epoxy coating. Resistant to continuous exposure to oils, fats, fuels, diluted acids, and salts, and to temporary exposure to most strong acids and alkalis.
• Low-emission
• Good UV resistance

Applications

• Heavily loaded industrial and storage facilities
• Areas exposed to chemical stress
• Production areas
• Process industry premises

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 95%, 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%. Always ensure the suitability of the coating for the intended substrate.

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 carried out using Nanten HM Bio Epoxy. The primer must seal all pores in the concrete to form a dense and continuous, unbroken film on 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 AR 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

Component A 2 parts, component B 1 part

Coverage

At 4 mm film thickness
Resin consumption approx. 1.3 l/m^2
For priming: 0.2–0.3 l/m^2
For top coating: >0.4 l/m^2 (recommended)
Approx. 7 kg of filler sand per m^2
In areas subject to thermal shock or steam cleaning, the minimum thickness of the trowel-applied coating must be 6 mm.

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 AR 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...+25°C, maximum shelf life 6 months. Store in a warm environment, sealed in original containers.
Mixing time	Approximately two minutes
Density	1.06 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 9 h (+25°C) and 18 h (+15°C). Resists light traffic after approx. 16 h (+25°C) and approx. 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	For priming, dilute 10–30 vol-% with Nanten A Epoxy Thinner. Do not dilute the resin for trowel application. For top coating, dilute 20–40 vol-% with Nanten A Epoxy Thinner.
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	< 140 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

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

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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.