



# NANTEN

## HM Bio Low VOC

4 mm

### PRODUCT TYPE

2-component trowel-applied epoxy coating for concrete floors.

### USAGE

Premises under hard wear conditions, e.g., production facilities, warehouses, kitchens. Premises where good indoor air quality and long service life of floors are valued.

### PROPERTIES

High mechanical resistance and yellowing resistance. Very low indoor air emission of solvents (VOC): emission class M1 for building material.

## TECHNICAL DATA

### COLORS

The color of the coating depends on the Nanten colored sand or colored sand mixture used, see Nanten color chart.

### GLOSS GOUP

Glossy (depends on surface smoothness).

### COVERAGE

#### 4 mm coating thickness:

Binder (Part A+B) appr. 1,4 l/m<sup>2</sup> (1,5 kg/m<sup>2</sup>), filler sand appr. 7 kg/m<sup>2</sup>.

Priming appr. 0,2-0,3 l/m<sup>2</sup>.

Surface varnish appr. 0,25-0,4 l/m<sup>2</sup>.

### MIXING RATIO

Part A: 2 parts by volume. Part B: 1 part by volume. (Filler sand 0,7-1,2 mm: appr. 65-70 kg/15 l)

### PACKAGING

Part A 10 l tin container.

Part B 5 l plastic container.

### WORKING TIME (+20 °C)

Appr. 20-30 min when poured on the floor. With higher temperatures the time is shorter.

### DRYING TIME

Dry to touch in 11 h (+25 °C) and 20 h (+15 °C). Dry, durable to light traffic in approx. 24 h (+25 °C) and 40 h (+15 °C). Fully cured in approx. 7 days.

### APPLICATION METHOD

Spread the coating with an adjustable trowel and finish with a steel trowel or trowel machine. For primer and varnish, use a suitable roller.

### THINNING

Thinners are not allowed (solventless Low VOC product).

### CLEANING OF TOOLS

Use e.g., ethyl acetate or Nanten A Epoxy Thinner.

### STORAGE

At + 5°C ...+ 25°C, max. shelf-life 6 months. Store warm, in tightly sealed original containers.

### OTHER INFORMATION

**Solid content:** appr. 100 vol.-%.

**Final hardness:** Shore D 80.

**VOC (calculated):** < 20 g /l. Maximum allowable content 500 g/l (cat A/j, 2004/42/EC).

## DIRECTIONS FOR USE

### REQUIREMENTS TO THE SUBSTRATE AND COATING CONDITIONS

Concrete strength class should be at least C25/C30 and wear resistance class 3. Concrete relative humidity should be below 95% and surface temperature at least 3 °C above the dew point. Air, surface and coating temperature should be over +15 °C and relative humidity below 80% during the coating application and drying.

### PRETREATMENT

#### New concrete floor

Remove laitance and any non-cured cement by surface grinding or shot-blasting. All loose material which lowers adhesion should be cleared away and cement dust carefully removed with a vacuum cleaner.

#### Old concrete floor

Remove laitance and any concrete that is in poor condition by surface grinding or shot-blasting. All loose material that lowers adhesion should be cleared away and the surface should be carefully cleaned with a vacuum cleaner. Soiled floors should be washed and rinsed with synthetic detergent before any works on the substrate. Remove completely any old films of paint on the substrate.

### PRIMING

Prime with unthinned Nanten HM Bio Low VOC. The primer should seal all the pores in the concrete so that an intact uniform film on the surface is formed. Scatter quartz sand on fresh primer as the work progresses, to improve adhesion of the body coat.

### FILLING

Small hollows and cracks should be cleaned and filled, e.g. with epoxy putty, consisting of HM Bio Low VOC and fine filler sand. Larger and more extensive filling/levelling can be performed with a filling/levelling mixture made of Nanten HM Bio Low VOC and filler sand (grain size 0,7-1,2 mm).

### MIXING OF COMPONENTS

First, stir part A and part B of HM Bio Low VOC in their own containers. Estimate the required amount of ready mixture, considering the surface area to be coated and the application time needed. Blend the components into one another in the correct ratio and continue with a

mixer at low speed for about two minutes, avoiding mixing any air into the system. Add the required amount of Nanten colored sand or colored sand mixture to the system while mixing simultaneously. Continue for about a minute. Make sure that also the material on the edges and at the bottom of the container becomes properly mixed.

### COATING

Pour the mixed compound to the floor in a uniform strip and spread with an adjustable trowel until achieving the required layer thickness. Spread in strips so that the surface finish can be done from the untreated floor. After application, the mass is compacted by hand with a steel trowel or by trowel machine.

### SURFACE SEALING

Varnish the surface of dry, compacted body coat with unthinned Nanten HM Bio Low VOC. We recommend applying the varnish in two treatments, which makes the surface easy to clean and hygienic.

### BASEBOARDS/RAMPS

For baseboards and ramps, thicken the epoxy-sand coating mass with a thickening agent (Sylothix).

### APPLICATION SAFETY AND CARE OF COATED FLOOR

See instructions: <https://nanten.fi/contractors/databank/?lang=en>. For an M1-classified product, cleaning with water or solvent-free detergent is advised.

<b>CE</b>	
Nanten Oy Teollisuustie 6, 04300 Tuusula, Finland	
21	
0809-CPR-1037 EN 1504-2: 2004 Surface protection products – Coating	
<u>Abrasion resistance (Taber)</u>	< 3000 mg
<u>Capillary absorption and permeability to water</u>	$w < 0,1 \text{ kg/m}^2 \times \text{h}^{0,5}$
<u>Impact resistance</u>	Class I: $\geq 4 \text{ Nm}$
<u>Adhesion strength by pull-off test</u>	$\geq 1,5 \text{ N/mm}^2$
<u>Reaction to fire</u>	$B_{fl} - s_1$
Characteristics have been tested for a system. Details: <u>DoP Nanten HM Bio Low VOC</u> .	

Although the technical specifications of the product description are based on our best knowledge and experience, all the above information must be taken as a guide in all cases. The user must ensure the suitability of the product for the application area. If the instructions are not followed, the user is solely responsible for the possible damages and consequences.