

Nanten PU Polyurethane Coating

Elastic self-smoothing floor covering for heavy-duty use



PRODUCT TYPE

Nanten PU Polyurethane coating is a 2-component self-smoothing floor covering for old and new concrete floors. Also suitable for metal, asphalt and veneer substrates. The covering is elastic, easy to clean and has good wear and impact resistance. Impact resistance 40 Nm, class III. The coating contains no volatile organic compounds (VOC). Painting supplies group 52.3 (RT-classification).

APPLICATION

Premises exposed to medium and light stress in industrial facilities and public buildings. Hospitals, schools, workshops, warehouses, offices and production premises.

PROPERTIES

Resistant to continuous exposure to oil, grease, fuels, normal detergents, salts and to temporary exposure to mild acids and alkali. Resilience class based on film thickness (1 - 3 mm) BC3 - BC4 (by54/BLY 12).

TECHNICAL DATA

Colours

Standard colours of Nanten colour chart, staining with RAL colours also possible. Without the UV treatment the colour of surfaces will change by the effect of sunlight.

Gloss group Full gloss.

Material consumption

1.5 litres/m², with 2 mm film thickness (DFT), filler sand approx. 1.5 kg /m².

Mixing ratio

(Part A) resin 3 parts by volume and (Part B) hardener 1 part by volume.

Package

Part A in 15 l tin containers and part B in 5 l plastic containers, hardener (part B) also available in 168 l barrels.

Application time (+ 20°C)

In container about 15 minutes. Poured on the floor about 20 – 30 minutes. With higher temperatures the time is shorter.

Drying time

Dry to touch 4 h (+ 25°C) and 7 h (+ 15°C).

Durable to light traffic in approx. 12 h (+ 25°C) and approx. 24 h (+ 15°C). Fully cured in approx. 7 days.

Application method

Spread with a roller and in case of compound with filler sand use a toothed steel trowel or variable trowel.

Dilution

with Nanten PU Thinner by 0 - 30% , only in priming.

Cleaning of tools Nanten PU Thinner..

Storage

+ 5°C ...+ 25°C, max. storage time 6 months. Store in a warm room, in tightly sealed original containers.

TECHNICAL PROPERTIES

Membrane thickness

Normally if applied with a roller approx. 0.5 mm and in compound coating between 1 - 4 mm.

Density (+ 25°C)

1.15 ... 1.17 kg / l, depending on the quantity of colour paste used.

Solid matter content About 100% by volume.

Final hardness (+ 20°C) Shore D 71.

Fire classification B_{FL} -s1, SFS-EN 13501-1

VOC

VOC in application mixture 0 g /l. EU VOC 2004/42/EC (cat A/j) max. 500 g/l (2010).

DIRECTIONS FOR USE

Surface requirements and application conditions

Concrete strength class should be at least C25/C30 and wear resistance class 3. Concrete relative humidity should be below 90% and surface temperature at least 3°C above dew point. Air, surface and coating temperature should be over + 15°C during the coating application and drying and relative humidity below 70%.

Surface preparation

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 which lowers adhesion should be cleared away and cement dust carefully removed 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 in the substrate.

Asphalt substrate

Wash the substrate with a sweeper or high-pressure water jet and let it dry before any further processing. Do not use any detergents or thinners which solve bitumen.

Veneer substrate

The boards should be fixed to their base and the base should be dry. Sand the surface of the boards and carefully remove the dust with a vacuum cleaner. Smooth the seams between boards and any screw heads with a putty mixed from the coating.

Priming

Prime with Nanten HM Epoxy Primer. You can also prime with PU Flex Polyurethane Coating diluted with Nanten PU Thinner by 0 – 30%. In case of moist concrete substrates with relative humidity > 90% use Nanten M Primer. Ensure good ventilation in the room. Spread the product as a primer, applying it with a rubber trowel and/or by rolling it crosswise. The primer should seal all the pores in the concrete and form a uniform tight and intact film on the surface.

Filling

Small hollows and cracks should be cleaned and filled with a filler prepared e.g. with Nanten PU Polyurethane Coating and fine filler sand. Larger and more extensive filling/levelling can be performed with a filling/levelling mixture made of Nanten PU Polyurethane Coating and filler sand (0.1 - 0.6 mm).

Mixing of components

First stir part A and part B of Nanten PU Polyurethane Coating in their own containers, calculate the required amount of prepared mixture, considering the surface area to be coated and the mixture application time. Blend the components into one another in the correct ratio and continue with a mixer at low speed for about two minutes, trying to avoid mixing any air into the mixture. Add the required amount of filler sand to the mixture while mixing at the same time and continue for about a minute, reaching into the corners of the container.

Coating

If the primer was applied more than two days ago, the surface should be roughened by sanding and sanding residues should be removed. Pour the mixed compound to the floor in a pool or in a uniform strip and spread with a variable trowel until achieving the required layer thickness. After spreading, roll the surface in the course of the work with a spike roller to remove air pockets. Do not drain the mixing container to the treated surface.

Care of the coated floor:

See [www.nanten.fi / products / cleaning and care instructions](http://www.nanten.fi/products/cleaning-and-care-instructions).

APPLICATION SAFETY:

See [www.nanten.fi / products / material safety data sheets](http://www.nanten.fi/products/material-safety-data-sheets).

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Nanten Oy Teollisuustie 6, FI-04300 Tuusula		
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0809-CPD-0796		
EN 1504-2:2004		
Protection and repair agent for concrete structures – Coating		PU Measured values
Wear resistance	Weight loss < 3000 mg	196 mg
Capillary absorption and water permeability	$w < 0,1 \text{ kg/m}^2 \times \text{h}^{0.5}$	0.01 kg
Impact resistance	Class III: $\geq 20 \text{ Nm}$	40 Nm
Adhesion strength in tensile test	$\geq 2.0 \text{ N/mm}^2$	3.6 N/mm^2
Fire behaviour	B _{fl} -s1	B _{fl} -s1
Anti-slip Class	II > 40	96
Compression strength		
Breakage elongation		
Breakage strength		90,7%
Measured values		16 N/mm^2

Even though the technical details of the product description are based on our best knowledge and experience, the above-named information should always be regarded as indicative. The user should make sure that the product is suitable for the application. If working contrary to these instructions, the user is solely responsible for any possible resulting damages and consequences.