

Nanten PU Flex Polyurethane Coating

Wear-resistant elastic waterproofing coating for technical rooms

PRODUCT TYPE

Nanten PU Flex Polyurethane Coating is 2-component, fire retardant, self-levelling, crack-bridging waterproofing coating for concrete floors. Also suitable for application on asphalt and plywood. The coating is very elastic, wear- and shock-resistant. The compound does not contain volatile organic compounds (VOC). Painting supplies group 52.3 (RT-classification).

APPLICATION

Medium to light stressed technical facilities in commercial and residential buildings, industrial and public construction projects. Typical application areas include coating and waterproofing of air-conditioning rooms. Also suitable for coating balconies.

CHARACTERISTICS

The product is resistant to constant contact with oils, grease, fuel, normally used detergents, salts, and to temporary contact with diluted acids and alkalis. Exposure class depending on the film thickness (1.5 to 2 mm) BC2 to BC3 (by54/BLY 12).

TECHNICAL DATA

Colours

Standard colour of Nanten colour chart, NCS and RAL colours.

Gloss group High gloss.

Coverage

For waterproofing, at least 2.0 l/m², film thickness 2.0 mm (DFT).

Mixing ratio

(component A) 3 parts by volume of resin, and (component B) 1 part by volume of hardener.

Package

Component A in 15 l steel container, Component B in 5 l plastic container, Hardener Component B also in 168 l drum

Application time (at +20°C)

Approx. 15 minutes in container. About 20 to 30 min when poured on floor Higher temperature reduces the application time.

Curing time (RH 50%)

Try to touch 5 h (+ 25°C) and 9 h (+ 15°C). Dry, suitable for light traffic, about 12 h (+ 25°C) and > 24 h (+ 15°C). Fully cured 7 d.

Application method

Spreading with serrated steel trowel or levelling trowel.

Dilution

With Nanten PU thinner only for priming, 10 to 30%.

Tools clean-up

Nanten PU Thinner.

Storage

+5°C ... +25°C, storage time up to 6 months. Store in warm, tightly sealed original containers.

TECHNICAL CHARACTERISTICS

Film thickness

For waterproofing 2 mm (DFT), which gives 5 year waterproofing warranty for coating.

Density (at +25°C)

1.24 ... 1.26 kg/l, depending on the used amount of color paste.

Solids volume content

About 100%vol.

Hardness (+20°C)

Shore D 58.

Breaking strain

About 160%.

Crack bridging ability

2.8 mm EN 1062-7.

VOC (calculated)

Ready-mixed compound VOC 0 g/l. EU VOC 2004/42/EC (cat A/j) max. 500 g/l (2010).

USAGE INSTRUCTIONS

Requirements for base material and application conditions

Ensure the concrete minimum strength class C25/30 and wear durability class 3. The concrete relative humidity should be below 90 % and the surface temperature at least 3°C above the air dew point. Air, surface and coating temperature should be more than +15°C and relative humidity should be below 70 %.

Surface preparations

New concrete floors

Cement base and any non-cured cement is removed by grinding, blasting or milling. Any loose material is removed and cement dust is carefully vacuumed.

Existing concrete floors

Cement base and deteriorated concrete is removed by grinding, blasting or milling. Any loose material is removed and cement dust is carefully vacuumed. Dirty floors should be washed and rinsed with synthetic detergent base before any other treatment. Old paint film must be completely removed.

Priming

Priming with Nanten HM Epoxy Primer. Can be primed with PU Flex polyurethane coating which is thinned with 0 to 30% of Nanten PU Thinner. On damp concrete surfaces, with relative humidity >90%, use Nanten M Primer. Ensure effective ventilation in the room. Do not use thinner on asphalt. Spread the product as it is with rubber trowel and/or criss-cross rolling, same as on concrete and plywood. The primer must block all pores of the concrete surface, to ensure uniform film which is dense and intact.

Patching

Small dents and cracks are cleaned and filled with putty consisting of eg Nanten PU Flex Polyurethane coating and fine sand. For larger fillings and adjustments, use the filling/smoothing compound consisting of Nanten PU Flex Polyurethane coating and filler (0.1 to 0.6 mm) using low speed mixer for about two minutes, avoiding mixing air to the compound.

Application

If the priming is older than two days, the application surface must be roughened and the waste removed. The mixed compound is poured on the floor on continuous trail, and spread by trowel to the layer with desired thickness. After application, air is removed from surface by rolling with needle roller immediately after spreading. Consumption for 2 mm layer is 2 l of PU Flex Polyurethane coating per m2. Do not spill mixing container to working surface.

Mixing the compound components

Premix the Nanten PU Flex Polyurethane coating component A and component B in their original containers, evaluate the required compound amount, taking into account the area to be coated and the application time. Mix the components right proportions,

Care of coated floors:

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

Warranty:

The solution has 5-year waterproofing warranty in accordance with our standard guarantee.

APPLICATION SAFETY

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

CE		
Nanten Oy Teollisuustie 6, FI-04300 Tuusula		
13		
0809 -CPR- 1037 EN 1504-2:2004		
Protection and repair agent for concrete structures – Coating		PU FLEX Measured values
Wear resistance Weight loss < 3000 mg		71 mg
Capillary absorption and water permeability w < 0,1 kg/m2 x h 0.5		0.01 kg
Impact resistance Class III: ≥20 Nm		20 Nm
Adhesion strength in tensile test ≥ 2.0 N/mm2		3.6 N/mm ²
Fire behaviour Cfl-s1		Cfl-s1
Compression strength Class II>40		108
Breakage elongation		190,3%
Breakage strength		16 N/mm2
Measured values		

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