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NANTEN PU BIO



Product description

2-component, M1-classified, self-levelling polyurethane coating.

- Elastic floor coating suitable not only for concrete but also for metal, asphalt, and plywood substrates
- Low-emission
- The coating has good resistance to wear and impact. It also provides good chemical resistance
- Film thickness approx. 0.5 mm when rolled, 2 mm when applied as a self-levelling coating

Applications

- Areas subject to heavy and medium-duty wear
- Hospitals and health care centers
- Schools and daycare centers
- Offices
- Shops
- Production and storage facilities

Instructions

Base requirements and coating conditions

The concrete must have a minimum strength class of C25/30 and wear resistance class 3. The relative humidity of the concrete must be below 90% when priming is done with a polyurethane coating. For epoxy-based primers, see section “Priming Treatment.” 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 be above +15°C, and the relative humidity must be below 70%. Ensure the suitability of the coating for the substrate to be treated.

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.

Asphalt substrate

The surface should be lightly milled. If the condition of the asphalt is good, steel brushing and shot blasting can be used. Detergents and thinners that dissolve bitumen must not be used.

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Plywood substrate

The boards must be securely fastened to the base and the substrate must be dry. The surface of the boards should be sanded, and dust must be carefully removed by vacuuming. Board joints and screw heads are filled with putty made from the coating mixture.

Priming

Priming is done with Nanten HM Bio Epoxy (for concrete with RH < 95%) or with Nanten M Primer for damp concrete (RH < 98%). Dilution may be used on concrete substrates if necessary. Adequate ventilation must be provided in the work area. On asphalt and plywood substrates, thinner must not be used; the product is applied as primer without dilution. The primer must seal all pores in the concrete to form a dense and continuous film on the surface. Apply a second coat if necessary.

Patching

Small holes and cracks are cleaned and filled with a putty made of, for example, PU Bio Coating and fine filler sand. Larger leveling work can be done using a levelling mortar made of Nanten PU Bio Coating and filler sand (0.1–0.6 mm).

Mixing

Pre-mix Part A and Part B of Nanten PU Polyurethane Coating in their own containers. Combine the components in the correct ratio and mix with a low-speed mixer for approximately two minutes, avoiding air entrapment in the mixture. Pour the mixture into a second container, add the required amount of filler sand while mixing, and continue mixing for about one more minute.

Mixing ratio

Part A: 3 parts by volume
Part B: 1 part by volume

Coverage

At 2 mm film thickness: 1.5 l/m^2 with approx. 1.5 kg/m^2 of added filler sand.

Application instructions

If the priming is older than two days, the surface must be roughened by sanding and all sanding dust must be removed. The mixed material is poured onto the floor in a puddle or continuous bead and spread with a notched trowel to the desired thickness. As the work progresses, the surface should be rolled with a spike roller to remove air bubbles. Do not scrape or pour the remaining material from the mixing container onto the substrate. To ensure uniform color and improved UV resistance, we recommend finishing the surface with Nanten PU W2 paint.

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	Tintable according to the Nanten and RAL color charts. To ensure uniform color and improved UV resistance, we recommend finishing the surface with Nanten PU W2 paint.
Painting supplies group (paintingRYL2012)	665, 666
Package size	Part A in a 15 l metal container and Part B in a 5 l plastic container or in 205 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. three minutes
Density	1.15–1.17 kg/l, depending on the amount of color paste used
Usage temperature	+15°C…+25°C
Usage time	In the container: approx. 15 minutes Once poured onto the floor: approx. 20–30 minutes Working time shortens as temperature increases.
Drying time	Touch-dry in 4 h (+25°C) and 7 h (+15°C). Resists light traffic after approx. 12 h (+25°C) and approx. 24 h (+15°C).
Exposure class	RL 04, RL 06 (PaintingRYL 2012)
Relative air humidity	Below 80% during application and curing of the coating
Thinner	Do not dilute
Method of application	When filled with sand, apply with a notched or sand-filled trowel. Without sand, apply with a notched trowel.
VOC content	< 10 g/l (ready-to-use mixture)EU VOC 2004/42/EC (Cat A/j) max. 500 g/l (2010)
Washing tools	Nanten PU Thinner

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.