CONIFLOOR 420

Two part PUR coating, low emission, total solid, self-levelling, tough hard

Product description

CONIFLOOR 420 is a two component, solvent free and low emission, self-levelling, and pigmented, tough hard PUR coating.

Fields of application

CONIFLOOR 420 is used as a statically crack bridging self-levelling coating or as broadcasted wear coat on mineral, primed (with CONIFLOOR 110 or 116LE) substrates for indoor floorings with medium to heavy mechanical stress.

On bituminous substrates (cast asphalt with sufficient rigidity and hardness), CONIFLOOR 420 can be used as scratch primer in this case.

Properties

CONIFLOOR 420 exhibits high mechanical properties and is easy to apply. Due to its hard and tough properties the coating CONIFLOOR 420 is still slightly elastic and therefore is able to bridge deformations (e.g. occurring static cracks) in the sub-base.

CONIFLOOR 420 is easy to clean and resistant to water, sea and wastewater, a variety of alkaline substances, diluted acids, brine, mineral oils, lubricants and fuels.

The yellowing, which occurs when CONIFLOOR 420 is exposed to UV light, does not affect its mechanical properties. To avoid the yellowing the coating can be sealed with CONIFLOOR 520 CW which at the same time increases the resistance against scratches.

CONIFLOOR 420 is used in our indoor flooring systems

- CONIFLOOR IPS
- CONIFLOOR IPS SR.

and others.

Technical Data

Mixing ratio		in parts by weight		5 : 1
Density	mix,	at 23 °C	g/cm^3	1.49
Viscosity	mix,	at 23 °C	mPas	3500
Processing time	at 12 °C		min. approx.	25
Re-coating interval / ready for foot traffic	at 20 °C		minimum h maximum h	18 – 24 48
Substrate and application temperature	minimum maximum		°C °C	10 30
Permissible relative humidity	maximum		%	70
Ready for mech. strain	at 20 °C		D	5
Light mech. Strain	at 20 °C		D	1
chemical strain	at 20 °C		d	7
Shore D hardness	after 28 d			69
Above figures are guide values and should not be used as a base for specifications!				

Application method

CONIFLOOR 420 is supplied in the correct proportions of component A (resin) and component B (hardener). Pour component B into component A and ensure that the pail containing component B is emptied completely.

To achieve a homogenous mix, thoroughly mix with a slowly rotating mixing device at about 300 rev/min. Ensure that the mixing device reaches side and bottom areas of the mixing vessel. The mixing process takes at least 3 minutes and should be performed until the blend is homogenous and streak free.

Pour the mix into another clean pail and mix it again for 1 additional minute.

The temperature of the components should be between 15-25 °C.

CONIFLOOR 420 can then be applied directly to the pre-treated substrate or – when used as thick self-levelling coating of at least 2 mm thickness – the coating can be filled while constantly stirring with up to 30% with quartz sand with a grain size of 0.1-0.3 mm.

CONIFLOOR 420 is applied using a squeegee, scraper or a notched trowel. The teeth size of the tool needs to be adjusted to the calculated consumption per 1m^2

Cross-wise spike rolling after application is recommend to de-aerate the coating.

The ambient and substrate temperature influences working life and curing time of CONIFLOOR 420. At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, re-coating interval and open time. High temperature and humidity accelerate chemical reactions so the contrary is true.

To fully cure the material, the substrate and working temperature must not fall below the minimum.

After application, the material should be protected from direct contact with water for approx. 8 hours (at 15 °C). Within this period, contact with water can cause foaming on the surface of the coating.

The relative humidity level may not exceed 70%.

Consumption

The consumption rate of CONIFLOOR 420 for a layer of at least 1.5mm is 2.3 kg/m^2.

The maximum thickness of this coating layer should not exceed 2.5 mm in one layer.

In case of layers, ≥ 2mm the coating can be filled with oven dried quartz sand with a grain size of 0.1-0.3 mm. The mixing ratio coating: quartz sand can be up to 1:0.3 by weight (30%). The share of binder then is approximately 2.6 kg/m^2.

Depending on the on the surface roughness of the cast asphalt the consumption of CONIFLOOR 420 used as base scratch coat is approximately 0.8-1.2 kg/m^2.

If CONIFLOOR 420 is used as a topcoat in the system CONIFLOOR IPS SR (highly slip resistant system), the consumption is approx. 0.7 until 1.0 kg/m^2 and depend on the grain size of the silica sand for broad cast. See the system datasheet to CONIFLOOR IPS SR.

Cleaning agent

Re-usable tools should be cleaned carefully with CLEANER 40 or other suitable solvents (e.g. butyl acetate).

Never use water or alcoholic solvents as cleaners!

Substrate condition

Cement bound substrates to be coated must be firm, dry, load bearing and free of loose and brittle particles and substances, which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants.

A pre-treatment of the substrate by grit or shot blasting, high-pressure water jetting, grinding or scabbing including the necessary post-treatment is mandatory.

After the pre-treatment, the bond strength of the concrete must be at least 1.5N/mm^2.

The moisture level must not exceed 4 %.

The temperature of the substrate must be at least 3°C above the current dew point temperature.

The sub base must contain a moisture barrier (damp proof membrane D.P.M.).

CONIFLOOR 420 is applied on the pre-treated and primed sub-base.
Notice for bituminous sub-bases:
CONIFLOOR 420 is used as a primer and applied as a thin layer directly on bituminous sub-bases (cast asphalt used indoors with sufficient hardness).

Then apply CONIFLOOR 420 as self-levelling coating.
When preparing the sub-base by grit blasting with the necessary post-treatment (dust free!) special attention needs to be paid to the grains in the cast asphalt. At least 70 % of the grains need to be open and free of asphalt to allow sufficient adhesion. If needed the quality of the sub-base needs to be tested carefully – contaminations in the cast asphalt have to be avoided.

After the pre-treatment, the bond strength of the concrete must be at least 1.5N/mm^2.

As for the rest the sections of the requirements concerning substrates to be coated shown in the according guidelines apply.

Pack size

CONIFLOOR 420 is supplied in 25 kg (metal) working packs. Components A and B are supplied in the correct proportions and delivered separately.

Colour

Standard colours: ca. RAL 7032 (grey)
further colours upon request.

Storage

Store in unopened pails under dry conditions at a temperature range of 5-25 °C.

Do not expose to direct sunlight.

Before use, please see "best before" date on the pail / drum.

Safety precautions

CONIFLOOR 420 is non-hazardous in its cured condition.

For protective measures, transport regulations and waste management please refer to the Material Safety Data Sheet of the product.

VOC contents

CONIFLOOR 420 meets the requirements of the EC directive 2004/42/EC.

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CE-Label:
See Declaration of Performance.

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