

CONIFLOOR 420

Two-part PUR coating, pigmented, 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, 112 or 116LE and QS broadcasted) 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			100 : 20 (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		°C	10
	maximum		°C	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

Please also [note the information in our general processing guidelines](#).

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.

Before mixing, the A component must be stirred up by machine, then the B component is poured into the container of the A component.

Care must be taken to ensure that the B component leaks completely, while carefully scraping out the container of spatulas.

To achieve a homogeneous consistency and intensive mixing, the two components must be thoroughly mixed with a slow-running mixer at about 300 rpm. The soil and edge areas of the mixing vessel must also be recorded.

The [mixing process](#) must be carried out for [about 2-3 minutes](#) until the homogeneous, streak-free state.

Then you have to pour into a second, clean container and [mix again for at least about 1 minute](#) to avoid mixing errors.

The [temperature](#) of the components during the mixing process should be between 15 and 25 °C.

The [relative humidity shall not exceed 70 %](#).

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 notched squeegee, scraper, or a notched trowel. The teeth size of the tool needs to be adjusted to the calculated consumption per 1m²

CONIFLOOR 420 is applied to the previously prepared and primed substrate. [In the case of epoxy resin primers, this is defined \(not in excess\) sanded with QS 0.3-0.8 mm.](#)

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. 12 hours (at 20 °C). Within this period, contact with water can cause foaming on the surface of the coating.

Consumption

With a [layer thickness of min. 1.5 mm](#), the consumption for the self-levelling coating is [2.3 kg/m² \(unfilled\)](#).

The maximum layer thickness should not exceed 3.5 mm in one operation. Alternatively, the layer thickness can be increased by a multi-layer design.

[From a layer thickness of 2 mm](#), the [addition of fire-dried quartz sand of grain size 0.1-0.3 mm](#) in a mixing ratio of up to 1:0.3 parts by weight (30%) (depending on temperature) [is possible](#). The [binder content is then approx. 2.6 kg/m²](#).

In the case of cast asphalt, the consumption as primer filler is approx. 0.8 – 1.2 kg/m² depending on the roughing depths.

If CONIFLOOR 420 is used as a final topcoat in the CONIFLOOR IPS SR system, the consumption is approx. 0.7 to approx. 1.0 kg/m² and depends on the grain size of the bedding sand used. Due to the yellowing of CONIFLOOR 420 under the influence of UV light, the use of epoxy resin or polyurethane or polyaspartic resins or an additional matte seal with CONIFLOOR 520 CW is recommended as head sealing. See the system data sheet for 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/mm².

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 with CONIFLOOR 110, 112 or 116 LE 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 1.5 N/mm².

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.

Colours

Standard colours after approx. RAL or on request

Note: Please note that aromatic polyurethane resins turn yellow due to UV light. This also applies to indoor applications. As we generally recommend an additional UV and colour-stable, pigmented aliphatic polyurethane resin sealing lacquer on these products, **no colour matching is performed**. The colour meets colour standards such as RAL or NCS and others with a colour deviation of $\Delta E \leq 2$ (otherwise $\Delta E \leq 1$).

Please also note our supplementary information on colours and surfaces.

If necessary, and especially with very light shades, it may be necessary to seal twice in white shades up to three times. .

If you have any questions, please contact the technical service of CONICA AG.

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.

The limit value for products ready for use (product type according to table IIA j Type sb) is:

Level II (from 2010) <500 g/l VOC.

When ready to use, this product contains less than 500 g/l VOC.



CE and UKCA marking:

See Declaration of Performance

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