

CONIFLOOR 445 LI

Two-part PUR coating, low emission, as elastic intermediate layer for producing an impact sound absorbing indoor floor

Product description

CONIFLOOR 445 LI is a two component, solvent free, **low emission, high elastic**, self-levelling PUR intermediate layer coating.

Fields of application

CONIFLOOR 445 LI is used in buildings in education and health care as well as in other areas and in private residential construction as an elastic layer under elastic self-levelling coatings and is used to produce point and combi-elastic coverings and above all to reduce impact and walking sound.

Properties

Due to its properties, CONIFLOOR 445 LI can partly **replace** the pre-fabricated elastic layer in our systems CONIFLOOR LPC+ and CONIFLOOR LPC+ FL. Up to a thickness of e.g., 2 - 4 mm, CONIFLOOR 445 LI can be applied in 1 coat. Higher thicknesses are not recommended because of point loads caused by furniture's.

CONIFLOOR 445 LI exhibits good self-levelling and excellent de-aeration properties as well as good mechanical properties.

CONIFLOOR 445 LI is applied to floor on by shot-blasting or grinding prepared concrete or cementitious screed, which is pre-treated with CONIFLOOR EP 110, EP 112 N, EP 712, EP 716, or EP 116 LE (**epoxy** based) and quartz sand. Unbound quartz sand must be removed after curing.

After CONIFLOOR 445 LI has cured, the coating CONIFLOOR 440/1 or CONIFLOOR 440/1 FL can be applied immediately, the application of a pore sealer is not necessary.

CONIFLOOR 445 LI is content of the system

- CONIFLOOR LPC+ LI

Technical Data

Mixing ratio	in parts by weight			100 : 27
Density	mix,	at 23 °C	g/cm ³	approx. 0.75
Viscosity	mix,	at 23 °C	mPas	approx. 3'000
Pot life	at 12°C at 23 °C at 30°C	min.		approx. 60 approx. 40 approx. 20
Ready for foot traffic	at 23 °C and 50 % relative humidity	h		approx. 16
Recoating with CONIFLOOR 440/1 or CONIFLOOR 440/1 FL	after max.	h.		72
Full mechanical strength	at 23°	d		7
Substrate and application temperature	minimum maximum	°C °C		10 30
Permissible relative humidity	maximum	%		75
Shore A hardness	after 24 h at 23 °C and 50 % relative humidity			55
Tensile strength (2mm)	DIN 53504	N/mm ²		1.31
Elongation at break	DIN 53504	%		116
<i>Above figures are guide values and must not be used as a base for specifications!</i>				

Application method

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

CONIFLOOR 445 LI is supplied in the correct proportions of component A (resin) and component B (hardener).

The [temperature](#) of both [components](#) must be between [15](#) and [25 °C](#).

The [temperature](#) of the [substrate](#) must be at least [3°C](#) above the current dew point temperature.

Component A is paste-like and has to be [mixed up](#) first – best with a [double head](#) stirrer – until it is liquid.



Then component [B](#) is poured into component [A](#). Make sure, that the pail, containing component [B](#) is emptied completely.

To achieve a [homogenous](#) mix, thoroughly mix with a slowly rotating [double head mixing device](#) at about 300 rpm/min. Ensure that the mixing device reaches side and bottom areas of the mixing vessel.

The [mixing](#) process takes [at least 2 minutes](#) and must be performed until the blend is homogenous and streak free.

CONIFLOOR 445 LI is a very light-weight product; therefore, much material is needed compared to other coatings. Therefore, we recommend using [2 mixing devices for big surfaces](#).

The mix [must](#) be poured into another [clean](#) pail and mix it again for 1 additional minute. This step is necessary to ensure the uniform mixing of the 2 components.

In case CONIFLOOR 445 LI is applied on a [wooden](#) subbase, the wood needs to be ground and vacuumed.

To avoid the running off the coating at the edges a self-gluing [foam strip](#) has to be fixed along the edges on the wood.



An application on inclined surfaces is not recommended because adding of thixotropic agent will change the de-aerating properties negative.

CONIFLOOR 445 LI is applied to the pre-treated surface using a [pin rake or a distance rake with helicopter distance blade](#).



The pin squeegee must be set [1-2mm](#) higher than the desired thickness of the elastic layer.

In case of a required elastic layer of [4 mm](#), the consumption rate of CONIFLOOR 445 LI is approximately [3.0 kg/m²](#), which corresponds to an [approximate consumption of 0.75 kg /m² per 1 mm thickness](#) of this coating.

To achieve a flawless, blister-free surface, it is [normally not necessary](#) to de-aerate the coating with a spike roller when processing in the recommended temperature range. However, we [recommend keeping a spike roller ready](#) for use when needed.

The ambient and substrate temperature influences working life and curing time of CONIFLOOR 445 LI. 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 must be protected from direct contact with water for approx. 12 hours (at [15 °C](#)). Within this period, contact with water can cause foaming on the surface of the coating.

Even [after curing](#), the surface remains relatively [sticky](#), so special attention must be paid to ensure that [no dirt](#) is carried onto the surface (clean footwear e.g., with a PE tape / clean wagon roll, etc.) before the following coating is applied.

Cleaning agent

Re-usable tools must be cleaned carefully with CLEANER 40; CLEANER 45 or other suitable solvents (e.g., butyl acetate). Never use water or alcoholic solvents as cleaners!

Substrate condition

The surface preparation of **concrete** is preferably done by dust-free shot blasting or grinding, if required by milling and subsequent shot blasting or grinding followed by vacuuming the surface.

All substrates (new and old) must be structurally sound, dry, and free of silicones, laitance, and loose particles. Clean floors of oil, grease, rubber skid marks, paint stains and other adhesion impairing contaminants.

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

When applying on a prepared **concrete** sub-base CONIFLOOR EP 110, EP 112 N, EP 712, EP 716, or EP 116 LE (**epoxy**-based) is applied in 2 coats, where the 2nd layer is broadcasted with oven dried quartz sand (defined broadcasting) - the excess of the sand to be removed after the primer has cured.

Epoxy primer is necessary to prevent ascending **moisture** and / or ascending air bubbles, which can lead to foaming / bubbles in the subsequent coating.

Sanding ensures the **adhesion** of the subsequent PU layer.

Further information can be found in the product data sheet of CONIFLOOR EP 110, EP 112 N, EP 712, EP 716, or EP 116 LE.

In case of a very **porous concrete**:



An additional, **filled epoxy-based primer** needs to be applied – we recommend using CONIFLOOR EP 110, EP 112 N, EP 712, EP 716, or EP 116 LE.

This primer must be – while fresh – broadcasted (defined broadcasting) with oven-dried quartz sand (grain size 0.3-0.8 mm). After curing, the excess sand needs to be removed.

Further information in the product data sheet of the primers.

When applying CONIFLOOR 445 LI on **wood**, the wood needs to be ground and vacuum cleaned. It is not necessary to apply a primer or pore sealer before the coating is applied.

For **other substrates**, preliminary **tests** must be carried out to determine whether and which primer is necessary.

Pack size

CONIFLOOR 445 LI is supplied in 25 kg working packs. Components A and B are supplied in the correct proportions and delivered separately.

Colour

Whitish-beige

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 445 LI 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.

CONIFLOOR 445 LI 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