

# CONIFLOOR EP 550 N

**Two-part EP resin topcoat and binder, transparent, low yellowing, for decorative coloured quartz sand floors, (total solid)**

## Product description

CONIFLOOR EP 550 N is a low viscosity, [transparent](#), [low yellowing](#), two-component [epoxy-based](#) resin, "Total Solid accord. to the test methods Deutsche Bauchemie e.V." and used as binder and top coat for decorative coloured quartz sand floors.

## Fields of application

CONIFLOOR EP 550 N is also designed for use as a [primer or scratch coat](#) on mineral substrates mainly indoors such as concrete and cementitious screeds.

CONIFLOOR EP 550 N can be also applied at least as a [clear top coat](#) on with coloured quartz sand broadcasted surfaces.

Instead of CONIFLOOR EP 550 N as primer, it is possible to use the standard primer CONIFLOOR EP 110, EP 712 or EP 116 LE below.

Furthermore, it can be used as binder for epoxy screeds with coloured quartz sands.

The [degree](#) of filling [depends](#) on the temperatures as well as on the thickness of the layer and should be between 0.5 up to 2 referred to the primer (ratio by weight).

## Properties

CONIFLOOR EP 550 N is [low yellowing \(indoor\)](#), has low viscosity and therefore shows high capillary activity.

The material has very good adhesion to substrates based on minerals and / or cement. The primer can is all-purpose.

Fully cured, CONIFLOOR EP 550 N exhibits very good mechanical properties. It is resistant to water, sea, and wastewater as well as to a variety of alkalis, diluted acids, brine, mineral oils, lubricants, and fuels.

CONIFLOOR EP 550 N is used in the system

- CONIFLOOR COLORQUARZ
- CONIFLOOR COLORQUARZ LE AS-ESD

and other systems.

## Technical Data

<b>Mixing ratio</b>	in parts by weight	A : B	100 : 50
<b>Density</b>	mix, at 23 °C	g/cm <sup>3</sup>	1,07
<b>Viscosity</b>	mix, at 23 °C	mPas	460
<b>Working time (25 kg working packs)</b>	at 12 °C	min.	60
	at 20 °C	min.	45
	at 30 °C	min.	25
<b>Re-coating interval</b>	at 12 °C	min. / max.	h 36 / 72
	at 20 °C	min. / max.	h 24 / 48
	at 30 °C	min. / max.	h 12 / 24
<b>Ready for foot traffic</b> (Early water contact see notes on page 3)	at 12 °C	h	min. 36
	at 20 °C	h	min. 24
	at 30 °C	h	min. 12
<b>Substrate and application temperature</b>	minimal	°C	12
	maximum	°C	30
<b>Max. permissible relative humidity</b>		%	75
<b>Shore D hardness</b>	after 7d		≥ 79
<b>Tensile bond strength</b>		N/mm <sup>2</sup>	≥ 1,5
<i>Above figures are guide values and should not be used as a base for specifications !</i>			

## Application method

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

CONIFLOOR EP 550 N is supplied in working packs, which contain the correct proportions of component A (resin) and component B (hardener).

## Mixing

Before mixing, precondition both A and B components to a [temperature](#) of approximately 15°C up to 25 °C.

Before mixing, the A component must be stirred up mechanically to homogenize additives again, 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.

Do not mix by hand, [mix](#) with a [mechanical](#) drill and paddle at a very low speed (ca. 300 rpm) for [at 2 - 3 minutes](#). Keep the mixer blades submerged in the material to [avoid](#) introducing air [bubbles](#). Do not work out of the original drum / pail.

After proper mixing to a homogeneous consistency, pour the mixture into a [fresh pail](#) and mix for another minute.

## Consumption

### Primer:

The [consumption](#) of the standard primer CONIFLOOR EP 110, EP 112 LE or EP 116 LE is approximately between [0.3-0.5 kg/m<sup>2</sup>](#) depending on the condition and porosity of the substrate.

A [2<sup>nd</sup> coat](#) of [0.2-0.4 kg/m<sup>2</sup>](#) of [primer](#) CONIFLOOR EP 110, EP 712 or EP 116 LE broadcasted with oven-dried sand is [mandatory](#) in order to seal concrete pores and capillaries completely. If substrate is dry (max. 4 %) and no rising water is available also CONIFLOOR EP 550 N could be used as primer.

### Scratch coat, levelling:

Unevenness  $\geq 0.5$  mm must be equalized by an additional scratch coat.

For this, it is possible to use CONIFLOOR EP 550 N filled with [fine-grained quartz](#) sand size 0.1-0.3 mm or 0.1-0.5 mm.

The [degree](#) of filling [depends](#) on the temperatures as well as on the thickness of the layer and should be between 0.5 up to 2 referred to the primer (ratio by weight).

The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates. For additional filling with oven-dried silica sand grain size 0.1-0.3 mm is general recommend.

### Color quartz screeds:

CONIFLOOR EP 550 N can be used as a binder for so-called EP mortar screed, e.g., with colour quartz.

Depending on the grain size and grain gradation, the binder content is about 8 % to about 10 % based on the weight of the quartz sand grain used but can vary. [Smoothing with power plate or helicopter straighteners shall be tested in conjunction with the grading curve used.](#)

For the preparation of a homogeneous mixture, the use of a forced mixer is recommended.

### Transparent top coats for wear coats with coloured QS:

Before applying the transparent top coat with CONIFLOOR EP 550 N, the surface must be over-sanded [if necessary](#) and the unintegrated excess grain on the surface removed by sweeping and vacuum cleaning.

The application of the top coat is preferably carried out [free of puddles with a rubber squeegee \(white neoprene rubber, blue or red rubber slider \(multitool\) or hard PU rubber\) or with an abrasion-free stainless steel or plastic smoothing trowel](#), if necessary with subsequent re-sizing with a lint-free nylon or microfiber roller.

Depending on the grain of the scattering and the desired surface roughness, the [consumption is at least approx. 400 to a maximum of approx. 900 g/m<sup>2</sup>](#).

When CONIFLOOR EP 550 N is used on coatings scattered in excess with colour chips as a top layer, the consumption is at least  $\geq 150$  g/m<sup>2</sup>, depending on the colour chips used, we recommend the creation of samples to test the tolerability.

The [quantities are indicative](#). If necessary, exact consumption values are to be determined on the object on the basis of sample surfaces after the substrate pre-treatment.

CONIFLOOR EP 550 N should be applied [at constant or falling temperatures to prevent blistering air from rising, trapped air](#). This must be observed in particular when used in the window or gate area.

### Coating build-ups:

For the production of the adhesive bond to a subsequent coating, if the revision times are not adhered to, [the still fresh primer or intermediate layer with fire-dried quartz sand](#) of the grain size 0.3-0.8 mm must be sprinkled opaque (consumption approx. 0.8 – 1.0 kg/m<sup>2</sup>). Dispersion in excess should be avoided.

## Temperatures

The [ambient, material and substrate temperatures influence the working life and curing time of the material](#). At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, open time and curing times. High temperatures speed up the chemical reactions thus the periods mentioned above are shortened accordingly.

For the complete curing of CONIFLOOR EP 550 N, the average temperature of the substrate must not fall below the lowest processing or object temperature.

In addition, the material must be [protected from direct water exposure for at least 48 hours \(at 20 °C\) and at least 5 days \(at 12 °C\)](#) after application. [Within this time, water exposure to the surface can cause white discoloration \(carbamate formation\) or stickiness in the case of earlier exposure](#), which significantly impairs the adhesion to the subsequent coating and must therefore be removed if necessary. If a white discoloration occurs in the final seal, it may not be completely removed.

## Substrate condition

All substrates (new and old) must be structurally sound, dry, and free of laitance and loose particles. Clean floors of oil, grease, and rubber skid marks, paint stains and other adhesion impairing 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 only necessary, when the layer is soiled, or the re-coating intervals have been exceeded.

After surface preparation, the **tensile strength** of the concrete should exceed 1.5 N/mm<sup>2</sup> (check with an approved pull-off tester at a load rate of 100 N/s).

The **moisture level** of the sub-base needs to be **less** than 4 %.

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

There must be a regular DPM between the stone base and the slab.

## Cleaning agent

Re-usable tools should be cleaned carefully with CLEANER 45 or e.g., isopropanol.

## Pack size

CONIFLOOR EP 550 N is supplied in 10 kg and 25 kg working packs.

## Colour

Transparent

## Storage

Store in original closed packing under dry conditions at a temperature range of 15 - 25 °C.

Do not expose the drums to direct sunlight.

Please check "best-before" date on the pail before usage.

## Safety precautions

CONIFLOOR EP 550 N 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 EP 550 N 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.