CONIFLOOR EP 716

Two-part EP resin for primer, scratch coats and levelling layers and epoxy mortars, total solid, free of benzyl alcohol and ethanol, very low emission

Product description
CONIFLOOR EP 716 is a low viscosity, very low emission and solvent free, (total solid), free of benzyl alcohol and ethanol, transparent, two component epoxy resin base primer.

Fields of application
CONIFLOOR EP 716 is designed for use as a primer on mineral substrates indoors and outdoors such as concrete and cementitious screeds.

It is also suitable as scratch coat and levelling layer, furthermore it can be used as epoxy mortar binder for skirting's or repair works. For this purpose the product is – after mixing if component A and B – filled with oven dried quartz sand.

The degree of filling depends on the temperatures as well as on the thickness of the layer and should be between 1:0.5 up to 1:2 referred to the primer (ratio by weight).

Properties
CONIFLOOR EP 716 is solvent free and especially free of benzyl alcohol and ethanol, has very low viscosity and therefore shows high capillary activity. The material has very good adhesion to substrates based on minerals and / or cement. The primer is all-purpose.

The yellowing, which occurs when exposed to UV light, does not impair its technical properties.

Fully cured, CONIFLOOR EP 716 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 716 is as example used in following systems:

- CONIFLOOR Colorquarz (LE)
- CONIFLOOR LPC, UPD, IPS
- CONIFLOOR IES, IET
  and others

Technical Data

Mixing ratio	in parts by weight		A : B	100 : 50
Density	mix, at 23 °C		g/cm³	1.07
Viscosity	mix, at 23 °C		mPas	600
Working time (24 kg working packs)	at 10 °C at 20 °C at 30 °C		min. min. min.	60 40 20
Re-coating interval	at 20 °C	min. max.	h h	10-12 48
Ready for foot traffic	at 10 °C at 23 °C at 30 °C		h h h	min. 18 min. 8 min. 4
Substrate and application temperature	minimum maximum		°C °C	8 35
Max. permissible relative humidity			%	75
Shore D hardness	after 7 d			80
Tensile bond strength			N/mm²	≥ 1,5

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 EP 716 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.

Pour component B into component A and ensure that pail containing component B is emptied completely. Scrape the sides and the bottom of the pail several times to ensure complete mixing.

To achieve a homogeneous consistency and intensive mixing, the two components should be mixed thoroughly with a slow-running stirrer at approx. 300 rpm. The bottom and edge areas of the mixing vessel must also be detected.

The mixing process must be carried out until homogeneous, streak-free condition approx. 2-3 minutes.
Then it has to be poured into a second, clean container and mixed again for about 1 minute to avoid mixing errors. For scratching and levelling fillings, add the filling sand only after repotting.

Consumption

The consumption of CONIFLOOR EP 716 used as primer is approximately between 0.3-0.5 kg/m^2 depending on the condition and porosity of the substrate.

A 2nd coat of 0.2-0.4 kg/m^2 of primer CONIFLOOR EP 716 broadcasted with oven-dried sand is mandatory in order to seal concrete pores and capillaries completely.

Unevenness > 0.5mm must be equalized by an additional scratch coat.

The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates. For additional filling with fire dried silica sand grain size 0.1-0.3 mm is recommended. Exact consumption values are to be determined if necessary on the object after the background preparation.

CONIFLOOR EP 716 should be applied when the ambient temperature is constant or falling, as this will decrease the risk of bubble formation due to evaporation of air that is enclosed in the concrete.

CONIFLOOR EP 716 is applied to the prepared substrate by rolling, spraying or spreading with a squeegee. After waiting for at least 10 minutes, finish with a roller. Ponding or spots where the primer is applied thick have to be avoided.

PUR Coatings

To improve the adhesion to a following coating oven dried sand (grain size 0.3-0.8mm – approx. 1kg/m^2) is broadcasted into the primer whilst still in order to improve adhesion of the following polyurethane based product. Bald patches as well as excess broadcasting have to be avoid.

Temperatures

The working life and curing time of the material is influenced by the ambient, material and substrate temperatures.

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.

To fully cure the material, substrate and application temperature should not fall below the minimum.

After application, the material should be protected from direct contact with water for approx. 24 h (at 20° C). Within this period, contact with water can cause a surface bloom and/or surface tackiness, both of which must be removed else the adhesion to the following coating is impaired.

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, 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/mm2 (check with an approved pull-off tester at a load rate of 100 N/s).

The substrates must have reached their equilibrium moisture content and must be protected against the effects of rising moisture during use.

Concrete	max. 4 %
Cementitious screed	max. 4 %
Anhydrite screed	max. 0.3 %
Magnesite screed	2 - 4 %

(% = per weight residual moisture content)

If there is increased residual moisture of up to 6% by mass in cement-based substrates, ask our technical service about possible blocking primers.

In the case of anhydrite and magnesite screeds, the ingress of moisture from rising water or water vapour must be prevented. In general, systems capable of diffusing water vapor are recommended for anhydrite and magnesite screeds.

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

Cleaning agent

Re-usable tools should be cleaned carefully with CLEANER 44 or e.g. isopropanol.

Pack size

CONIFLOOR EP 716 is supplied in 24 kg working packs.

Color

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 716 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 716 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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