CONIFLOOR EP 115 N

Two-part EP resin primer moisture tolerant, for damp cementitious substrates and as blocking primer, (total solid)

Material description

CONIFLOOR EP 115 N is a low-viscosity, unpigmented and two-component primer based on epoxy liquid resin, "Total Solid according to test methods of the Deutsche Bauchemie e.V.", with a special hardener with high compatibility on cementitious surfaces with matt moisture on the surface.

Fields of application

The product CONIFLOOR EP 115 N is intended exclusively for use by professional users.

CONIFLOOR EP 115 N is used indoors and outdoors as a pore-sealing and capillary-sealing primer on cementitious mineral substrates such as concrete or cement screed. These substrates can be dry or matt damp. Matt damp means that the surface that is not water-saturated after substrate pre-treatment (e.g. by shot blasting) has a sufficiently good penetration of the primer into the substrate and that interim adhesion is guaranteed after curing.

The primer resin can also be used as a scraping and levelling filler. For this purpose, the resin is filled with fire-dried quartz sand after mixing the two components.
The degree of filling depends on the temperatures and the layer thickness and is in the range of 0.5 to approx. 1.5 parts by weight in relation to the epoxy resin binder.

Properties

CONIFLOOR EP 115 N is low viscosity and therefore has a high capillary activity.
It has a very good adhesion bond on mineral, cementitious and also matt moist substrates. The primer can be used universally.

The material is easy to process and moisture-barrier after curing (applied 2 times film-forming).

After curing, CONIFLOOR EP 115 N is characterised by very good mechanical properties. It is water, seawater and wastewater resistant and resistant to a wide range of alkalis, diluted acids, salt solutions, mineral oils, lubricants and fuels.

Technical Data

Mixing ratio	In parts by weight		A : B	100 : 56
Density	mixture, at 23 °C		g/cm3	1,09
Viscosity	mixture, at 23 °C		mPas	960
Processing time (25 kg container)	at 10 °C at 20 °C at 30 °C		Min. Min. Min.	50 30 15
Reworkability	at 20 °C	minimal maximum	h h	12 48
Ready for foot traffic	at 10 °C at 20 °C at 30 °C		h h h	min. 24 min. 12 min. 8
Substrate and application temperature	minimal maximum		°C °C	10 30
Max. permissible relative humidity			%	80
Shore D hardness	after 7d			80
Tensile bond strength			N/mm2	≥ 1.5

These figures are indicative. The values are not used to create specifications!

Processing instructions

Please also note the information in our general processing guidelines.

CONIFLOOR EP 115 N is supplied in the right ratio of component A (resin) and component B (hardener).

Mixing

The temperature of the two components during the mixing process should be between +10°C and max. +25°C.

First, the B component is poured into the container of the A component. Care must be taken to ensure that the B component runs out completely, carefully scraping out the container with a filler.

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

The mixing process must be carried out until it reaches a homogeneous, streak-free state approx. 2-3 minutes .

Then repot in a second, clean container and mix again for about 1 minute to avoid mixing errors. For scraping and levelling fillers, add the filling sands only after repotting.

Consumption

The consumption of CONIFLOOR EP 115 N as a primer is at least approx. 0.4-0.6 kg/m2. The material is preferably applied flooding with a rubber slide to ensure that the substrate is free of pores, then re-sizing is done with a roller after a waiting time of approx. 10 minutes.

When used as a barrier primer or with increased residual moisture of up to max. 6 M-%, the first application must be film-forming with at least 0.5 – 0.7 kg/m2. The barrier primer is not sanded off and is revised within the revision period with a 2nd step, the revision times must be observed.

A second work step with approx. 0.3-0.4 kg/m2 of CONIFLOOR EP 115 N is necessary to ensure complete filling of pores and capillaries.
If necessary, the second step is sprinkled with QS 0.3-0.8 mm covering (not in excess), with a subsequent PU coating, sprinkling must be done to ensure a sufficient adhesive bond.

For roughness depths >0.5mm, a scraper or levelling filler in combination with a primer must also be provided.

For this purpose, CONIFLOOR EP 115 N can be filled with fire-dried quartz sand with a grain size of 0.1-0.3 in a mixing ratio of 1:0.5 to approx. 1.5 by weight.
The degree of filling depends on the application quantity and the ambient or substrate temperature.

For use as a moisture-barrier primer, please follow the instructions under the points Substrate Condition and Substrate Preparation.

The application of CONIFLOOR EP 115 N is carried out by rolling up, or better by means of a rubber squeegee and by rolling or brushing it evenly onto the previously prepared surface. Puddle formation or the thick-layered accumulation of the primer resin should be avoided.

The quantities are indicative and may be higher for very rough or porous surfaces. If necessary, exact consumption values must be determined on the property after substrate pretreatment.

CONIFLOOR EP 115 N should be applied at constant or falling temperatures to prevent bubble formation due to rising, trapped air. This is particularly important when used outdoors.

Polyurethane coatings

To produce the adhesive bond to a subsequent polyurethane resin-based coating, the still fresh primer must be sprinkled with fire-dried quartz sand with a grain size of 0.3-0.8 mm (consumption approx. 0.4 – 0.8 kg/m^2). Scattering in excess should be avoided. In the case of a scratch or levelling filler, sprinkle opaquely until saturated. In the case of elastic coatings, the primer layer must be absolutely water-vapour-diffusion-tight.

Temperatures

Both the processing time of CONIFLOOR EP 115 N and the curing of the flooring are largely determined by the temperature of the material, substrate and environment. At low temperatures, the chemical reactions are generally delayed; this also extends the pot, walkability and rework times. At the same time, increasing viscosity may increase the consumption per unit area. Conversely, at high temperatures, chemical reactions are accelerated, so that the times mentioned above are shortened accordingly.

For the complete curing of CONIFLOOR EP 115 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 approx. 24 hours (at 20 °C) after application. During this time, the effect of water on the surface can lead to the formation of stains or cause a stickiness that significantly impairs the adhesion to the subsequent coating and must therefore be removed if necessary.

Detergent

At the end of the work and in the event of work interruptions, all equipment intended for reuse must be cleaned with CLEANER 45 or, for example, isopropanol.

Substrate condition

Cement-bonded substrates must be firm, dry, fine-grip and load bearing, free of cement glue layers, loose and crumbly parts as well as separating substances such as oil, grease, rubber abrasion, paint residues or the like.

Before and during the processing of coatings, the use of silicone-containing or other reaction-disrupting substances must be excluded.

The substrates must have reached their equilibrium moisture level and must also be protected from permanent moisture on the back during use, or special measures must be taken, such as applying an additional barrier primer (ask our technical service for this).

For wall surfaces, also by sandblasting/wet sandblasting to achieve a load-bearing substrate.

The substrates may be matt damp but not have a liquid film. It must be ensured that no rising damp from the subsoil (pressing water) is to be expected as a permanent load.

Concrete max. 4 M-% moisture
Cement screed max. 4 M-% moisture
2-fold, film-forming primer up to max. 6 M-% residual moisture (after consultation with technical service)

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

Substrate preparation
The substrate must be prepared by suitable measures, such as shot blasting or diamond grinding, so that the requirements listed above are met. Fill excavations and defects in the substrate flush with the surface with CONICA EP mortars. The substrate to be coated must have an average adhesive tensile strength of at least 1.5 N/mm2 (proof e.g. with Herion device, tensile speed 100 N/s).

Delivery form
CONIFLOOR EP 115 N is delivered in container units of 25 kg each. A and B components are filled in separate containers in the coordinated mixing ratio.

Tint
Comp. A is transparent, Comp. B is brownish

Storage
Well-sealed original containers should be stored in a dry place in a temperature range of 15 to 25 °C.
Direct sunlight and falling below the storage temperature must be avoided.

Before using the product, please check the best-before date stated on the container.

Physiological behaviour and protective measures
When cured, CONIFLOOR EP 115 N is physiologically harmless.

The protective measures required during processing as well as transport regulations and disposal instructions can be found in the current safety data sheets of the product.

VOC content labelling:
CONIFLOOR 115 N meets the requirements of EU Directive 2004/42/EC.
The limit value for products in the ready-to-use state (product type according to Table IIA j Type Lb) is:
Stage II (from 2010) < 500 g/l VOC.
This product contains less than 500 g/l of VOC when ready for use.

Warnings
Information, hazard warnings and the GIS CODE can be found in the Safety Data Sheets (MSDS).

Personal protective equipment
Suitable nitrile gloves, goggles, splash guards, long-sleeved shirts or arm warmers.

CE and UKCA marking:
See Declaration of Performance

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