

CONIPROOF 413 / CONIPROOF 414

Two component polyuria waterproofing membrane, solvent free, high elastic, for hand application

Product descriptions

CONIPROOF 413 und CONIPROOF 414 are a two component, solvent free, [polyuria membranes for hand application](#) with high [crack bridging](#) property. CONIPROOF 414 is thixotropic and for this possible to apply on vertical and sloping areas.

Fields of application

CONIPROOF 413 or CONIPROOF 414 are used as crack bridging coatings, as impermeable layer and applied onto concrete and bituminous substrates and both are used for waterproofing applications.

Using the suitable primer, CONIPROOF 413 or CONIPROOF 414 can be applied on to many substrates. To repair the spray membrane CONIPROOF 410 this hand applied materials are possible for using.

Properties

CONIPROOF 413 and CONIPROOF 414 are seamless less. Additional they exhibit high elastic crack bridging and water damp diffusion properties, even at temperature below – 20°C. Both and fully bonded.

CONIPROOF 413 or CONIPROOF 414 does not have sufficient UV and weather resistance. It must be protected for outdoor application by a UV-stable top coat (CONIPROOF 513). For indoor application a following layer should protect the membrane.

The membranes CONIPROOF 413 / 414 are part in the system

- CONIPROOF SU hand applied

and for other applications.

Technical Data

				CONIPROOF 413	CONIPROOF 414
Mixing ratio		in parts by weight	A : B	100 : 180	100 : 200
Density		mix, at 23 °C	g/cm ³	1.16	1.16
Viscosity		mix, at 23 °C	mPas	5800	thixotropic
Working time (25 kg working packs)		at 10 °C at 20 °C at 30 °C	min. min. min.	30 25 15	35 25 15
Substrate and application temperature		minimal maximum	°C °C	5 30	5 30
Product temperature for application		minimal maximum	°C °C	10 30	10 30
Max. permissible relative humidity		maximum	%	90	90
Re-coating interval, ready for foot traffic		at 10 °C at 20 ° at 30 °C	min. h min. h min. h	8 6 4	8-10 5-6 5
Consumption			per 1 mm thickness	approx. 1200 g/m ²	approx. 1200 g/m ²
Tensile strength Elongation at break Hardness Shore A E-Module		DIN 53504 DIN 53504 DIN ISO 7619-1 DIN 53504	N/mm ² % N/mm ²	≥ 14 ≥ 800 75 ≥ 11	≥ 10 ≥ 720 75 ≥ 11
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](#).

CONIPROOF 413 and CONIPROOF 414 are 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.

The component A must be mechanically stirred before mixing, then pour component A into component B and ensure that the pail containing component A is emptied completely.

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 1 or 2 minutes](#).

Substrate condition

CONIPROOF 413 and CONIPROOF 414 may only be applied on sufficiently prepared substrates.

The 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.

As for the rest the sections of the requirements concerning substrates to be coated shown in the according guidelines apply.

Cementitious substrates:

For cementitious screeds and concrete, the minimum pull of strength has to be 1.5 N/mm² and shot blasting is the preferred method.

An additional scratch coat must equalize unevenness > 0.5mm.

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, if the layer is soiled or the re-coating intervals have been exceeded.

After the pre-treatment, the bond strength of the concrete must be at least 1.5N/mm².

The subbase must contain a moisture barrier (damp proof membrane D.P.M.). The [moisture level](#) must not exceed [4 %](#).

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

Asphalt:

In roofing applications, the asphalt should be cleaned by high pressure water jetting.

In mechanically stressed applications note:

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.

The minimum pull of strength has to be min. 1.0 N/mm² and shot blasting is the preferred method.

An additional scratch coat must equalize unevenness > 0.5 mm.

If needed the quality of the sub-base needs to be tested carefully – contaminations in the asphalt have to be avoided.

Application method

Priming

CONIFLOOR EP 110 or CONIPROOF EP 190/1 is rolled on the pre-treated substrate by a roller or applied with a rubber squeegee and back rolling to a thin layer – [puddles](#) need to be [avoided](#).

The consumption of CONIFLOOR EP 110 or CONIPROOF EP 190/1 is approximately 0.3 - 0.5 kg/m². The 2nd application of CONIFLOOR EP 110 or 118 with approx. 0.2 - 0.4 kg/m².

When there is unevenness of >0.5mm, a scratch coat has to be applied general in order to equalize the substrate.

For vertical areas, the using of a thixotropic agent (CONIFLOOR/CONIPROOF 940) is needed.

Sanding

The primer [must](#) be broadcasted with oven dried quartz sand (grain size 0.3–0.8 mm) whilst still wet - [without excess sand / no bald](#) patches to ensure the adhesion of the following epoxy-based layer.

Consumption of the quartz sand is approximately min. 0.8-1.0 kg/m² (primer) and up to 2 - 3 kg/m² (scratch coat).

Quartz sand, which is – after curing – still loose and unbound, needs to be pushed off with a steel scraper. The whole surface has to be cleaned (before the next coat is applied) either sweeping and/or by vacuum cleaning.

The relative [humidity](#) level may not exceed [90%](#). The temperature of the substrate should be min. +3°C above the dew point.

CONIPROOF 413 and CONIPROOF 414 can be applied on various substrates; the preparation as well as the primer to be used vary.

Ensure the re-coating interval of the primer (tack-free). Use the following guide to select the suitable primer:

Substrate	Primer
Concrete and cementitious screeds	CONIFLOOR EP 110, EP 112, EP 118 or CONIPROOF EP 190/1, broadcasting with oven-dried quartz sand, grain size 0.3 - 0.8 mm,
Asphalt	CONIFLOOR 160 or CONIFLOOR 420
Metal and non-ferrous metals	CONIFLOOR EP 185 W
Existing membrane or polyurethane primer or epoxy primer without excess on broadcasted sand	CONIPROOF 165
Others	Contact the local technical representative

Iron / Steel:

Iron and steel must be prepared according to **DIN EN ISO 12944-4** (1998) to a SA 2 ½ surface (sand blasting) or in difficult to reach areas to St 3 (using hand tools or power tools) prior to application of the primer.

Special attention to be paid on the edges ensuring the adhesion.

Consumption

CONIPROOF 413 and CONIPROOF 414 are normally applied at min. 2.5 kg/m². This corresponds to a thickness of approx. 2 mm.

Top Coat

CONIPROOF 413 and CONIPROOF 414 does not have sufficient UV and weather resistance. It must be protected by a UV-stable top coat (e.g. CONIPROOF 513).

Cleaning agent

Re-usable tools should be cleaned carefully with Thinner 20 or e.g. butyl acetate.

Pack size

CONIPROOF 413 and CONIPROOF 414 are supplied in working packs. A- und B-component are filled in separate cans in the suitable mixing ratio.

CONIPROOF 413: Set 25 kg (8.9 kg A / 16.1 kg B)

CONIPROOF 414: Set 24.9 kg (8.3 kg A / 16.6 kg B)

Set 12 kg (4 kg A / 8 kg B)

Colour: Component A is grey,
Component B is 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

CONIPROOF 413 and CONIPROOF 414 are 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

CONIPROOF 413 and CONIPROOF 414 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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