

# CONIPUR 3785

Two component Primer based on Epoxy Resin for use on Early Aged Concrete and on high Residual Moisture Content Cementitious Screeds (total solid)

## Product description

CONIPUR 3785 is a low viscosity, unpigmented two component epoxy resin based primer, classified as "Total Solid" according to the test methods of Deutsche Bauchemie e.V..

## Fields of application

CONIPUR 3785 is designed for use as a pore-closing and capillary sealing primer on mineral substrates such as concrete and cementitious screeds for indoor and outdoor applications.

CONIPUR 3785 can be used as additional damp proof membrane on concrete. The substrate must have a regular DPM (moisture barrier – damp proof membrane).

## Properties

CONIPUR 3785 has very low viscosity and therefore shows high capillary activity and is easy to apply.

CONIPUR 3785 is suitable for the application on early age concrete (at least 7 days old), it tolerates a higher residual moisture contents up to max. 6 % and is also suitable for surfaces in contact with the ground.

Fully cured, CONIPUR 3785 exhibits good mechanical properties.

## Technical Data

<b>Mixing ratio</b>	in parts per weight		100 : 60
<b>Density</b>	mix at 23 °C	g/cm <sup>3</sup>	approx. 1.02
<b>Viscosity</b>	mix at 23 °C	mPas	approx. 900
<b>Pot-life</b>	at 10 °C	minimum	approx. 60
	at 23 °C	minimum	approx. 40
	at 30 °C	minimum	approx. 20
<b>Recoating after</b> (depending on the temperature)	at least	h	12
	maximal	h	48
<b>Substrate and application temperature</b>	minimum	°C	10
	maximum	°C	30
<b>Permissible relative humidity</b>		%	75
<b>Shore D hardness</b>	after 7d		81
<b>Tensile bond Strength</b>		N/mm <sup>2</sup>	≥ 1.5
<i>Above figures are guide values and must not be used as a base for specifications!</i>			

## Consumption

Approx. 0.4-0.6 kg/m<sup>2</sup> for the first layer – depending on the porosity of the substrate the consumption might be higher.

A second coat of 0.3-0.4 kg/m<sup>2</sup> is necessary in order to seal concrete pores and capillaries completely.

To ensure the adhesion of the following PU layer. The second coat must be broadcasted with approximately 1.0 kg/m<sup>2</sup> oven dried sand (grain size 0.3-0.8 mm).

## Application method

CONIPUR 3785 is supplied in working packs which are pre-packaged in the exact ratio. Pour the entire contents of part B into the pail of Part A.

The optimal temperature of the material before and during application is between 10 and 25 °C.

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

Pour component B into component A and ensure that the pail containing component B is emptied completely.

To achieve a homogenous mix, thoroughly mix with a slowly rotating mixing device at about 300 rev/min. Ensure that the mixing device reaches side and bottom areas of the mixing vessel. The mixing process takes at least 3 minutes and must be performed until the mix is homogenous and streak free.

Pour the mix into another clean pail and thoroughly mix again for at least another minute.

CONIPUR 3785 must be applied when the ambient temperature is constant or falling as this will decrease the risk of bubble formation due to expansion of air that is enclosed in the concrete.

The application is done by rolling, or better with a rubber squeegee and by even re-rolling or brushing on the previously prepared substrate. Puddle formation or thick-layered accumulations should be avoided.

The first layer must be applied with 0.4-0.6 kg/m<sup>2</sup> – do not sand.

A second layer with CONIPUR 3785 is necessary to ensure complete backfilling of pores and capillaries. The consumption for this layer is 0.3-0.4 kg/m<sup>2</sup>.

To improve the adhesion of the following polyurethane based product, the second layer of the primer must be broadcasted with oven-dried quartz sand (grain size 0.3-0.8 mm). Unbound quartz sand must be removed after curing.

Both the application and curing time are essentially determined by the temperature of the material, substrate and environment. At low temperatures, the chemical reactions are generally slowed down; this lengthens the pot life, re-coating interval and open time. At the same time the viscosity increases which leads to a higher consumption. High temperature and humidity accelerate chemical reactions so that the time frames mentioned above are shortened accordingly. Direct sunshine shortens the time frames considerably.

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

After application, the material must 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 as it impairs the adhesion of the following layer.

#### **Cleaning agent**

After application or in the event of application interruption, re-usable tools must be cleaned carefully with CLEANER 44 or for example isopropanol.

#### **Substrate condition**

Substrates to be coated have to be firm, dry and load bearing, free of loose and brittle particles and substances which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants.

The substrate to be coated must be secured against rising moisture (pressing water).

The bond strength of the substrate must be at least 1.5 N/mm<sup>2</sup> (check with an approved pull off tester e.g. "Herion"). If this is not the case, the substrate has to be prepared by grit or shot blasting, high pressure water jetting, grinding or scabbing (incl. the post treatment).

The residual moisture of the concrete may be between 4.5 % up to maximum 6 % (testing for instance with a CM device).

CONIPUR 3785 can be applied on early age concrete which is at least 7 days old.

For an anhydrite screed the residual moisture is limited to a maximum of 0.3 % and for a magnesite screed 2 – 4 %. The intrusion of moisture from components or the soil must be excluded

CONIPUR 3785 can also be used as a bonding agent for surfaces in contact with the ground

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

**Pack size**

CONIPUR 3785 is supplied in 24 kg working packs. Components A and B are supplied separately in the correct proportions.

**Colour**

part A colourless, part B brownish

**Storage**

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

Do not expose to direct sunlight.

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

**Safety precautions**

CONIPUR 3785 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.

CONIPUR 3785 meets the requirements of the EC directive 2004/42/EC.

**CE-Label:**

see Declaration of Performance

**UKCA-Label:**

see Declaration of Conformity

