

CONIPUR 3785

Two component 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.". It has a high tolerance to concrete with a damp surface.

Fields of application

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

The substrate must have a regular DPM (moisture barrier – damp proof membrane).

Properties

CONIPUR 3785 shows good adhesion to many substrates, has a very low viscosity and is easy to apply.

As CONIPUR 3785 is very moisture tolerant, it can be applied 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.

CONIPUR 3785 shows high penetration and seals pores and capillaries

In fully cured systems CONIPUR 3785 exhibits good mechanical properties.

Technical Data

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

Consumption

The consumption of CONIPUR 3785 for the first layer is between 0.3 - 0.5 kg/m² depending on the condition and porosity of the substrate.

A **2nd coat** of 0.2-0.4 kg/m² of **primer** CONIPUR 3785 broadcasted with approximately 1.0 kg/m² oven dried sand (grain size 0.3 - 0.8 mm) **is** necessary in order to **seal** concrete pores and capillaries **completely** and to ensure the adhesion of the following PU layer.

The above consumption figures are intended as a **guide** only and may be higher on very rough or porous substrates.

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.

Do not **mix** by hand. Mix with a mechanical drill and paddle at a very low speed (ca. 300 rpm) for **at least 3 minutes**.

Scrape the sides and the bottom of the pail several times to ensure complete mixing. Keep the mixer blades submerged in the coating to avoid introducing air bubbles.

Do not work out of the original pail.

After proper mixing to a homogeneous consistency, pour the mixture into a **clean pail** and mix for 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 first layer of 0.3 - 0.5 kg/m² CONIPUR 3785 is applied to the prepared substrate by rolling or by spreading with a squeegee and subsequent re-rolling or brushing. Puddles or thick-layered spots must be avoided.

The consumption for the 2nd layer of CONIPUR 3785 is approximately 0.2 - 0.4 kg/m². To obtain an improved adhesion of a following **PUR** layer, oven dried **sand** with a grain size of 0.3 - 0.8 mm is **broadcasted** into the primer whilst still **wet**. Unbound quartz sand must be removed from the surface after curing.

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 time frames mentioned above are shortened accordingly.

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.

The **temperature** of the substrate must be at least **3 °C** above the dew point both during the application and for at least 24 hours after the application (at 15 °C).

Cleaning agent

The tools used (e.g. paint brushes, rags) can be carefully cleaned with isopropanol.

Substrate condition

All substrates (new and old) must be structurally sound, dry and free of laitance and loose particles. Clean floors of oil, grease, rubber skid marks, paint stains and other adhesion impairing contaminants.

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

Mechanical surface profiling by **grit** or **shot blasting**, **high pressure water jetting**, grinding or scabbing (including the necessary post-treatment) are the preferred floor **preparation** methods.

After surface preparation the **tensile strength** of the substrate must be at least **1.5 N / mm²** (testing for instance with a Herion unit, traction speed 100 N / s).

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. CONIPUR 3785 can also be used as a bonding agent for surfaces in contact with the ground. For an anhydrite screed 0.3% and for a magnesite screed 2 - 4%. The **intrusion** of moisture from components or the soil must be excluded

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.

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.