

VELOSIT® PR 301

2-Component Universally Applicable Epoxy Resin



Application fields

VELOSIT PR 301 is a solvent-free, non-filled and colorless 2-component epoxy-based reactive resin for cement-, calcium sulfate- and reaction resin-bound substrates.

Typical application fields besides others are as follows:

- As a primer under solvent-free coating systems.
- Suitable for formulating non-decorative fillers and mortar systems
- As a laminating resin
- As a dust-binding coating for cementitious substrates with a residual cementitious moisture content of up to 4 % (measured according to CM) or 0.5 Ma.-% for calcium sulfate screeds

Properties

VELOSIT PR 301 is a solvent-free, 2-component, universally applicable epoxy resin.

- VOC and solvent free
- Very low viscosity
- Possesses a strong capillary activity
- Impervious to carbon dioxide, thus provides lasting protection of reinforced concrete surfaces against carbonation

Application

1.) Substrate preparation

The substrate must be dry, non-slip, clean, load-bearing and free from separating substances such as greases, oils, etc..

The surface of the substrate must be checked and in any case prepared by blasting, grinding or milling according to the results of the substrate test. Depending on the type of preparation, different rough surfaces are produced, which influences the material consumption.

2.) Processing

VELOSIT PR 301 is applied with a rubber squeegee, lambskin roller, toothed squeegee or smoothing trowel.

Mixing:

VELOSIT PR 301 is supplied in 2 containers with the A and B components in the correct mixing ratio. Material, air and floor temperature must be between + 15 °C and + 28 °C during the entire working time. Material that is too warm reacts very quickly, while material that is too cold has an increased viscosity, which makes it penetrate less easily into the substrate. Furthermore, it must be ensured that the substrate temperature is 3 °C above the dew point temperature. The relative humidity must not exceed 80 %.

Application should be carried out at constant or falling temperature to avoid bubble formation due to expansion of air in the substrate. Ensure good ventilation after application and during curing. Avoid drafts. The surface must be protected from direct contact with water during the entire curing phase.

Allow the B-component to flow completely into the A-component. Mix intensively with a slow-running agitator. Then transfer the material to a clean bucket and stir again for 30 sec. until a streak-free mixture is achieved.

a.) Floor application:
 Pour mixed VELOSIT PR 301 and distribute it over the calculated area with a squeegee. Back roll for several times with a non shed roller in a 90° angle to the squeegee application. Work in sections to ensure exact coverage rate. If a cement-based screed or underlayment is to be installed on top of VELOSIT PR 301, broadcast a full cover of suitable quartz sand 0.7 mm – 1.25 mm onto the fresh coating, allowed to dry, and vacuum off the excess sand. For other type of top coatings refer to the respective manufacturers specifications.

b.) Mortar application:
 Mortars made with VELOSIT PR 301 and suitable quartz sand 0.7 mm – 1.25 mm are applied by

trowel. Use a rounded cove trowel to produce concave moldings with the mortar.

Estimating

Primer for smooth substrates (rough substrates lead to increased consumption:
 250 - 400 g/m²
 1 : 10 - 1 : 25 as mortar depending on grading curve, application and open porosity of the finished covering.

Cleaning

VELOSIT PR 301 can be removed in the fresh state with solvents like naphta. Once it has cured only mechanical cleaning is possible.

Quality features

Color:	transparent - yellowish
Mixing ratio:	2 : 1 (by weight) 1.8 : 1 (by volume)
Density at, 23°C /50 % relative humidity:	approx. 1,09 g/cm ³
Shore hardness:	D > 70
Solids:	100 %
Viscosity / 25 °C, V03.4):	Comp. A: approx. 500 - 800 mPas Comp. B: approx. 30 - 50 mPas
Mixing viscosity:	approx. 200 mPas
Processing time: (at 50 % rel. humidity)	12 - 15 min. (30 °C) 25 - 30 min. (20 °C) 40 - 50 min. (10 °C)

Overcoating times:
(at 50 % rel. humidity)

min. 6 - 8 hrs,
max. 12 hrs. at 30 °C

min. 12 - 16 hrs,
max. 24 h. At 20 °C

min. 24 - 36 hrs,
max. 48 h At 10 °C

**Curing (full mechanical loading capacity
at 50 % rel. humidity):**

3 days (30 °C)
7 days (20 °C)
10 days (10 °C)

Packaging

VELOSIT PR 301 is available in 30 kg (66 lb.) packs
with

- A-component at 20 kg (44 lb.)
- B-component at 10 kg (22 lb.)

and 3 kg (6.6 lb.) combination units A- and B-
component

Storage

VELOSIT PR 301 can be stored in unopened original
packs for 12 months at 15 – 25 °C (59 – 77 °F) in a
dry storage place protected against sunlight.

Safety

Please observe the actual valid material safety data
sheet and follow the described safety measures for
handling of the product.

Recommendations

VELOSIT PR 301 is only available for professional
applicators.

All described product features are determined under
controlled laboratory conditions according to the

relevant international standards. Values determined
under job site conditions may deviate from the
stated values.

Please always use the latest version of this data
sheet available from our website www.velosit.de.

Manufacturer

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