

VELOSIT® CP 201

Cementitious

Corrosion

Protection and Concrete Primer

Application fields

VELOSIT CP 201 is a cementitious corrosion protection and primer for concrete, masonry and steel. It is designed as bonding bridge for the VELOSIT RM repair mortars on critical substrates. Typical application fields besides others are as follows:

- Priming of concrete and masonry for VELOSIT RM mortars
- Corrosion protection of concrete embedded steel like rebar
- Prime coat to fill bug holes, honeycombs and surface roughness
- Can be used for vibrated floor systems as a bonding bridge between tiles and mortar bed

Properties

VELOSIT CP 201 is a shrinkage compensated cementitious slurry with very quick strength development.

VELOSIT CP 201 can be applied by brush or suitable spray equipment.

- Minimal shrinkage/expansion under dry or wet curing conditions
- 45 min. working time and 1740 psi (12 MPa) compressive strength after 4 hours
- Final strength of more than 6525 psi (45 MPa) after 28 days
- Very good adhesion to concrete and masonry
- Good resistance against aggressive media with a pH range of 3-12 and against soft water with low ion content
- Good sulfate resistance
- Increased resistance against aggressive media with a pH range of 3-12 and against soft water with low ion content
- Potable water approved

Application

1.) Substrate preparation

VELOSIT CP 201 is designed for mineralic substrates like concrete, masonry, stone and can also be used on steel.

The logo for Velosit, featuring a stylized 'V' symbol followed by the word 'velosit' in a bold, lowercase sans-serif font.

a.) Steel must be prepared to white metal.

b.) Concrete substrates must be prepared with sand blasting, shot blasting or ideally high pressure water blasting (>1450 psi/100bar) to remove all bond breaking substances.

Remove all carbonated concrete. Test with Phenolphthalein or other suitable indicator until concrete with sufficient alkalinity for rebar protection is reached. If rebar is exposed remove concrete at least ¼" (6mm) behind rebar to fully embed the steel into VELOSIT repair system.

Substrate must be rough, open porous and load bearing. The minimum requirement for adhesive strength is 290 psi (2 MPa) and for the compressive strength 4350 psi (30 MPa). Active water leaks must be treated and fully stopped with VELOSIT PC 221/222. Leaking cracks need to be sealed with a suitable VELOSIT IR injection material. Before the application of VELOSIT CP 201, dampen the substrate with clean water to a saturated surface dry (SSD) condition.

2.) Processing

Mixing: Mix VELOSIT CP 201 with 17 -20% potable water, i.e. 1.1 – 1.3 gal (4.3-5 l) water per 55 lb (25 kg) bag. Fill the 17% mixing water (1.1 gal per bag) into a suitable bucket and mix the powder with a slow speed drill (300-600 rpm) into the water until a lump-free mix is achieved. Add more water under stirring until the desired consistency is achieved.

The product is workable for 45-60 min. at 70°F/ 23°C.

a.) Brush application: Apply one coat with a masons brush in crossing applications to the pre-dampened substrate at the specified rate. The VELOSIT RM repair mortar can be applied after the first one has gained sufficient strength which is after 3 hours at 70°F/23°C. Colder temperatures extend, warmer temperatures shorten this time.

b.) Spray application: Suitable spray machines are for example:

- Inotec GmbH: INOMAT-M8
- Desoi GmbH: Desoi SP-Y

Fill the product into the feed hopper of the spray machine and spray continuously. VELOSIT CP 201 is applied in one coat. Long spray interruptions may result in clogging of the spray hose. The product may cure a lot faster if the hose is exposed to direct sunlight. Always empty and flush the machine after spraying or before long spray interruptions. VELOSIT CP 201 is a fast curing material and may be hard to remove if left in the machine.

3.) Curing

VELOSIT CP 201 does not require long term curing as it reacts relatively fast with water. Overcoat with a repair system as soon as it has gained sufficient strength.

Estimating

Brush or spray application 40 mils (1 mm):
VELOSIT CP 201: 168 sqft/bag

Cleaning

VELOSIT CP 201 can be removed in the fresh state with water. Once it has cured acidic cleaners like muriatic acid are required.

Quality features

Color:	gray
Mixing ratio by weight:	100 : 18
Mixing ratio by volume:	100 : 28
Density:	13.34 lbs/gal
Substrate temperature:	40 – 95°F* (5-35°C)

Compressive / flexural strength:

4 hours: 1740/433 psi (13/3 MPa)

24 hours: 2900/725 psi (20/5 MPa)

7 days: 5220/870 psi (36/6 MPa)

28 days: 6670/1015 psi (46/7 MPa)

Chloride ions: < 0.05%

Carbonation resistance: passed

Capillary water absorption: 0.1 kg/m² x h^{0.5}

Adhesive strength: 406 psi (2.8 MPa)

Restrained shrinkage: 406 psi (2.8 MPa)



Fire rating EN13501-1: Class A1

Packaging

VELOSIT CP 201 is available in 55 lb (25 kg) watertight plastic bags.

Storage

VELOSIT CP 201 can be stored in unopened original packs for 12 months at 40-95°F (5-35°C) 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 CP 201 is only available for professional applicators.

Concrete treated with VELOSIT CP 201 may discolor or show strong efflorescence in water contact. This is normal and caused by the crystalline reaction.

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. Velosit USA LLC warrants this product for a period of 1 year from the date of installation to be manufactured without defects and to be consistent with printed technical characteristics. Velosit USA LLC makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied.

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

Effective date

July 2014

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