VELOSIT® PC 222

Plug Cement And Starter





Application fields

VELOSIT PC 222 is a flash setting cement for concrete and masonry. The product is used to waterproof water leakages and as an accelerator for other VELOSIT mortars. It is especially strong against negative side water pressure. Typical application fields besides others are as follows:

- Waterproofing of punctual water leakages for example in concrete pipes, water tanks and basement walls
- Set accelerator for VELOSIT repair mortars

Properties

VELOSIT PC 222 is a shrinkage compensated plug cement with very fast strength development. VELOSIT PC 222 sets within 10 – 15 seconds. VELOSIT PC 222 is immediately waterproof and anchors itself into the concrete surface.

VELOSIT PC 222 surpasses the requirements of EN 1504-3 class R2 for concrete repair (CR) and can be used according to the principles 3.1 and 3.3 acc. to EN 1504-9.

VELOSIT PC 222 can be applied by hand or trowel.

- Minimal shrinkage/expansion under dry resp. wet curing conditions
- Fast strength development with 12 MPa compressive strength after 1 hours and final strength of more than 40 MPa (5800 psi) after 28 days
- Resists 130 m (400 ft.) water pressure acc. to EN 12390-8
- Flash setting with water
- Ready to receive top coat after 10 min.
- Ready for water pressure after a few minutes
- Very good adhesion to concrete and masonry
- No cracking
- No curing required
- Good resistance against aggressive media with a pH range of 3-12 and against soft water with low ion content
- Good weathering resistance
- Potable water approved
- Good sulfate resistance

Application

1.) Substrate preparation

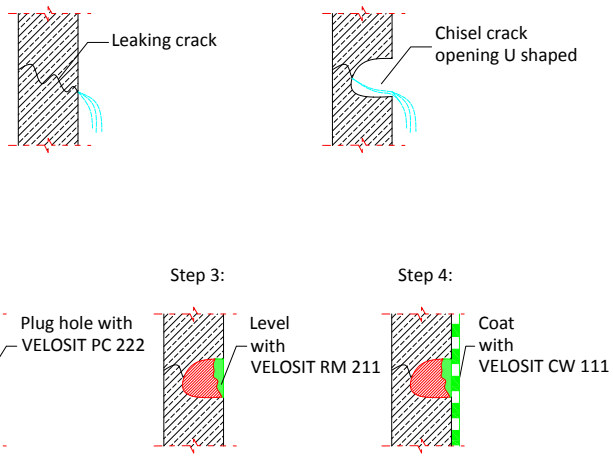
VELOSIT PC 222 is designed for mineralic substrates like concrete, masonry or absorptive natural stones.

Chisel defective area or water leakage open achieving a U-shaped profile. Remove all dust and debris from areas to be treated. Dampen the surface with water to a saturated surface dry (SSD) condition before application of VELOSIT PC 222.

2.) Processing

VELOSIT PC 222 is applied as a dry powder into the leakage. Due to the immediate set it is not possible to mix the product with water.

a.) Plugging of water leakages: Apply a handful of dry VELOSIT PC 222 (wear protective gloves!) into the prepared leakage. Hold for 1 to 2 minutes until the product has sufficiently hardened. Immediately shave the surface flush with the substrate. After a short waiting time the area waterproofing with VELOSIT WP 101 or CW 111 can be applied.



b.) Use as accelerator: VELOSIT PC 222 acts as an accelerator for many cementitious mortars. Required amount must be determined in trial mixes.

3.) Curing

VELOSIT PC 222 does not require curing.

Cleaning

VELOSIT PC 222 can be removed in the fresh state with water. Once it has cured acidic cleaners like muriatic acid are required.

Quality features

Color:	gray
Density:	1.2 kg/l
Substrate temperature:	5 – 35 °C (40 – 95 °F)
Water impermeability acc. EN 12390-8:	
- Positive side:	5 bar (72 psi)
- Negative side:	5 bar (72 psi)
Compressive / flexural strength:	
1 hour:	12 / 2 MPa (1740/290 psi)
24 hours:	30 / 5 MPa (4350/725 psi)
7 days:	40 / 6 MPa (5800/870 psi)
Chloride ions:	< 0.05 %
Carbonation resistance:	passed
Capillary water absorption:	0.4 kg/m^2 x h$^{0.5}$
Adhesive strength:	1.2 MPa (174 psi)
Restrained shrinkage:	1.2 MPa (174 psi)

Packaging

VELOSIT PC 222 is available in 12 kg (26 lb.) plastic pails.

Storage

VELOSIT PC 222 can be stored in unopened original packs for 12 months at 5 – 35 °C (40 – 95 °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 PC 222 is only available for professional applicators.

Never add water to VELOSIT PC 222 when it has started to set. Stiffened material must be disposed.

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.

CE

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VELOSIT PC 222

DIN EN 1504-3
Product for non structural repair for concrete

Compressive strength	R2
Chloride ion content	≤ 0.05 %
Adhesive bond	≥ 0.8 MPa
Restrained shrinkage/ expansion	NPD
Reaction to fire	E

Manufacturer

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