BETOCRETE®-CL210-WP

Crystalline waterproofing admixture with hydrophobic properties

Material number	Contents	Unit of quantity	Packaging	Colour
206444001	25	KG	Canister	White
206444002	220	KG	Drum	White
206444003	1040	KG	Container (IBC)	White

Product features

- Liquid
- Increased active crack healing in concrete
- Sealant in accordance with DIN EN 934-2: Table 9
- Improves frost resistance and resistance to thaw
- Reduced chloride ion migration
- lower carbonation speed
- watertight concrete sealing system in accordance with BBA

Advantages

- Crack healing of surface and continuous cracks up to 0.4 mm possible
- Sealant reduces water absorption immediately
- Lower water input means lower input of concrete-damaging substances
- Increase durability of concrete component
- Minimisation of concrete servicing and maintenance costs
- Economic liquid dosing in the concrete plant

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Areas of application

- For the integral crystalline waterproofing of concrete structures
- For foundations and watertight concrete components
- For economic, commercial, sports facilities and housing construction
- For infrastructure, water and wastewater structures
- For in-situ concrete, pre-cast concrete components and shotcrete
- Except for XA3 in accordance with DIN EN 206-1/DIN 1045-2

Technical Data

Material properties

Density (spec. weight)	approx. 1.05 g/cm³
Alkali content (Na2O equivalent)	≤ 8.5 percentage by weight
Chloride content	≤ 0.1 %
pH value	approx. 11.00 - 12.00
Water pollution class (WGK)	1 (Selbsteinstufung)

Mixing

Mixing time	approx. 45 seconds
Mixing time, mixer truck (transport concrete)	approx. 1 minutes per m³

Application

Application temperature	from 8 °C to 40 °C
Recommended dosing in regards to cement	approx. 1.75 - 2.25 %

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Material consumption

Material consumption rate according to the area of application

The following dosing levels have proven to be successful:

w/c ratio	Dosing level
< 0.4	1.75 % relative to CEM
> 0.4 - 0.5	1.85 % relative to CEM
> 0.5 - 0.55	2.00 % relative to CEM

Do not exceed the max. dosing level of 2.25 % relative to CEM.
For a cement content of ≥ 400 kg/m³, a dosing level of 7.00 kg/m³ is sufficient.

Additional technical notes

Requirement for the concrete		
Minimum cement content in kg/m³	CEM I	270
	CEM II	290
	CEM III/A	350
	CEM III/B	380
Minimum quantities of binders/mixtures in kg/m³	Portland cement	270
	Portland cement ≤ 35 % mixed with blast furnace slag, fly ash or pozzolans	290
	Portland cement ≤ 50 % mixed with blast furnace slag	350
Maximum additions to the binder in kg/m³	Blast furnace slag	100
	Fly ash	80

Usage

Dosing in concrete plant

BETOCRETE®-CL210-WP can be added with the mixing water or the finished concrete mixture.

Dosing in mixer truck

1. BETOCRETE®-CL210-WP is dosed directly into the mixing drum of the vehicle.
2. The mixing time must be ca. 1 Minuten pro m³ drum content (however, at least 5 minutes).

Storage conditions

Storage

Store in a frost-free, cool and dry place. At min. 8 - 40 °C for 12 months in the original canister. Promptly use opened canister.

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Notes

- At storage temperatures > +30 °C, BETOCRETE®-CL210-WP may change colour. This will not have a negative influence on the product features.
- Stir BETOCRETE®-CL210-WP thoroughly after a long storage period (> 1 month).
- BETOCRETE®-CL210-WP modified concretes may have crystals on the surface, depending on the composition.
- Concrete with BETOCRETE®-CL210-WP must be produced, applied and post-treated in accordance with the currently valid standards.
- Lignite fly ash is only of limited suitability.
- The crack expansion limitations must be complied with by the planner/engineer/structural engineer under any circumstances. Contrary designs must be verified after the corresponding verification and suitability!
- In rare cases, BETOCRETE®-CL210-WP can influence the solidification behaviour of the concrete. As a system-compatible product, RUXOLITH-T5 (VZ) is available for controlling the concrete.
- Before applying BETOCRETE®-CL210-WP, even with other types of additives, preliminary tests must be carried out in accordance with the valid standards.
- The use of CEM III/C cements is prohibited.
- As the amount of Portland cement in the concrete decreases and the dosage is reduced, the crystallization processes may slow down.

Annotations

Conformity / Declaration / Verification

CE

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EN 934-2
BETOCRETE-CL210-WP
Sealant for concrete
EN 934-2 T9

Chloride content	max. 0.10 M.-%
Alkali content	max. 8.5 M.-%
Corrosion behaviour	Only contains components per EN 934-1:2008, Annex A.1
Compressive strength	Satisfied
Capillary water absorption	Satisfied
Air content	Satisfied
Hazardous substances	NPD

NPD = "No Performance Determined"