BETOCRETE®-CL170-P

Crystalline waterproofing admixture with liquefying properties



Material number	Package type	Colour	Units / pallet	Pc/package
206443001	25 kg, can	Colourless	24,000	1,000
206443002	220 kg, drum	Colourless	2,000	1,000
206443003	1,100 kg, IBC	Colourless	1,000	1,000

Areas of application

- For integral crystalline waterproofing of concrete components in direct ground contact
- 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
- BETOCRETE-CL210-WP shows the highest effectiveness in exposure class XS

Product features

- Liquid
- Increased active crack healing in concrete
- Concrete plasticiser (BV) after DIN EN 934-2:T2
- Water savings of up to 10 %
- Improves frost resistance and resistance to freeze thaw
- Reduced chloride ion migration
- Suitable for drinking water after DVGW worksheet W-347 and W-270

Advantages

- crack healing of surface and continuous cracks up to 0.4mm (tapering down to 0.5mm) possible
- Increase durability of concrete component
- Minimisation of concrete servicing and maintenance costs
- Economic liquid dosing in the concrete plant

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Technical Data

Material properties

Density (spec. weight)	approx. 1.18 g/cm³
Alkali content (Na2O equivalent)	≤ 10.5 percentage by weight
Chloride content	≤ 0.1 %
Water pollution class (WGK)	1 (self-classification)

Mixing

Mixing time, concrete plant	> 45 seconds
Mixing time, mixer truck (transport concrete)	> 5 minutes

Application

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

Material rate

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.

Minimum cement content in concrete

Requirement for the concrete		
Minimum cement content in kg/m³	CEM I	270
	CEM II	290
	CEM III/A	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	380
Maximum additions to the binder in kg/m³	Blast furnace slag	100
	Fly ash	80

Application

Dosing in concrete plant

BETOCRETE®-CL170-P can be added with the mixing water or the finished concrete mixture.

Dosing in mixer truck

1. BETOCRETE®-CL170-P is dosed directly into the mixing drum of the mixer truck
2. The mixing time must be approx. 1 minute per m³ drum content (however, at least 5 minutes)

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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 container.

Notes

- Stir BETOCRETE®-CL170-P thoroughly after a long storage period (> 1 month).
- BETOCRETE®-CL170-P modified concretes may have crystals on the surface, depending on the composition.
- At storage temperatures > +30 °C, BETOCRETE®-CL170-P may change colour. This will not have a negative influence on the product features.
- Concrete with BETOCRETE®-CL170-P must be produced, applied and post-treated in accordance with the currently valid standards.
- Lignite fly ash is only of limited suitability.
- The use of CEM III/B&C cements is prohibited.
- 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!
- Before applying BETOCRETE®-CL170-P, even with other types of additives, preliminary tests must be carried out in accordance with the valid standards.
- In rare cases, BETOCRETE®-CL170-P can influence the solidification behaviour of the concrete. As a system-compatible product, RUXOLITH-T5 (VZ) is available for controlling the concrete.
- Excluded are concretes of exposure class XA3 in accordance with DIN EN 206-1/DIN 1045-2.
- Movements in the concrete component, e.g. due to traffic loads or temperature differences, can cause sealed crystalline cracks to open again.

Observe applicable safety data sheet!

Explanations

Conformity / Declaration / Verification

CE

0764

SCHOMBURG GmbH & Co. KG
Aquafinstraße 2 – 8
D-32760 Detmold
17
0764-CPR 0353
206443-1

EN 934-2
206443
Concrete liquefier for concrete
EN 934-2:T2

Chloride content	max. 0.10 M.-%
Alkali content	max. 10.5 M.-%
Corrosion behaviour	only contains components after EN 934-1:2008, Annex A.1
Compressive strength	fulfilled
Water requirement reduction	fulfilled
Air content	fulfilled
Hazardous substances	NPD

NPD = "No Performance Determined"

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