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Smarter than Concrete

Product information Concretum® C-DRY

Rapid-drying concrete

Description

Concretum® C-DRY is a rapid-drying concrete. The progress of construction work can be considerably accelerated using Concretum® C-DRY. Concretum® C-DRY is produced in concrete plants.

Applications

- In general for the production of construction units which are expected to dry fast.
- Maintenance of multi-story car parks and parking areas.
- Maintenance of bridges.
- Maintenance and construction of concrete carriageways and concrete coverings with very short off-times (e.g. roundabouts, bus stops).
- In general where a waterproofing system is applied on the upper layer (screed).
- Replacement and maintenance of solid railway basements.

Material Properties

- After 48 hours Concretum® C-DRY arrives at a moisture content of 4.0 CM-%. This allows continuing working (e.g. applications of waterproofing on bridges or building of floorings).
- Concretum® C-DRY is easy to process. Furthermore, the consistency stays constant for a long period of time.
- Concretum® C-DRY features low shrinkage and low heat of hydration. Therefore, construction units made of Concretum® C-DRY show low risk of cracking and are immensely durable.
- Depending on the application, Concretum® C-DRY can be reinforced by Concretum® SUPERFIBER. The use of these high modulus polymer fibers (Young's Modulus higher than concrete) allows the replacement of secondary reinforcement and yet an efficient cracking control.

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Norm classification SN EN 206-1: Concrete - Part 1: Specification, performance, production and conformity:

Class of strength	at least C30/37
Classes of expositions	to XC4, XD2, to XF4 (depending on the application)
Maximum size of aggregate	Dmax = 8 to 32 mm (depending on the application)
Class of consistence	C2 or C3 (depending on the application)
Class of Chloride concentration	Cl 0.20
W/Z-value	max. 0.45 (depending on the application)
Water supply capacity (SIA 262/1 Anh. A)	qw max. 10 g/(m²h)
Chloride resistance (SIA 262/1 Anh. B)	DCl max. $10*10^{-12}$ m²/s
Frost and de-icing salt resistance (SIA 262/1 Anh. C)	medium to high (depending on application and production)
Cement	CEM I, CEM II A/LL or CEM III/B
Cement concentration	at least 300 kg/m³ (depending on the max. aggregate size)
Moisture content max. 4.0 % (CM)	reached after 48 hours

Working information

- Processing time: approximately 2 hours, delay possible.
- No addition of water or additives on the building site!
- Temperature of fresh concrete at the installation: 10 bis 30 °C.
- For the compaction apply the same regulations as for the installation of traditional high-quality concretes.
- It is necessary to work the surface and begin the curing immediately after the installation. This must be carried out step by step!
- Striking time: at least 48 hours (in exceptional cases it is possible to take less time - please contact us for further information).
- Deviations from the declared hardening times, strength development, processing times and drying periods are possible, depending on the circumstances. It is recommended to make a test in advance.
- Curing: Free surfaces have to be covered with plastic sheets or thermo mats. For optimal drying the cover should be removed after about 6 hours. It is not recommended to use a liquid curing compound.

  More curings can be useful depending on the installation situation - You are welcome to contact us for further information!

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