DURAHIT® CI25

Item No 2917/D

Corrosion inhibitor for extending corrosion lifetime through increased concrete resistance

FIELDS OF APPLICATION

DURAHIT® CI25 is a corrosion inhibiting admixture designed to avoid corrosion of reinforced and pre-stressed concrete.

Corrosion is the major structural threat to concrete constructions. DURAHIT® CI25 improves the durability of reinforced concrete at the level of the concrete and the rebar:

- DURAHIT® CI25-based admixtures provide corrosion inhibition for reinforcements. Forming protective hydroxide layers around the reinforcements and enhancing chloride fixation promotes rebar durability
- DURAHIT® CI25-based admixtures increase strength and reduces porosity of the concrete itself, which leads to an improved resistance towards water and chlorides migration as well as against mechanical stress.

DOSAGE

The general dosage range is 1.0 – 4.0 mass-% of the cement content.

STANDARD COMPLIANCE

DURAHIT® CI25 conforms to ASTM G109 and C1582.

WORKING PRINCIPLE

Nitrate in DURAHIT® CI25 reacts with iron to form hydroxide layers. Those layers prevent corrosion of steel reinforcements. The protective effect of DURAHIT® CI25 is comparable to that of nitrite, which has been used successfully for many years. DURAHIT® CI25 is the environmentally friendly alternative to nitrite.

TECHNICAL DATA

Homogeneity	homogenous
Colour	colourless
State	liquid
Density	1.22 ± 0.03 g/cm³
pH-value	7.0 ± 1.0
Workability	from +1 °C
Shelf life	approx. 1 year from date of production if stored properly.
Storage conditions	Store under cover, out of direct sunlight and protect from extremes of temperature.

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PROCESSING INDICATIONS

DURAHIT® CI25 is a ready to use admixture to be added to the ready-mixed concrete.

For the recommended mixing time the definitions and regulations of EN 206-1 apply.

COMPATIBILITY

DURAHIT® CI25 is suitable for concrete designs containing OPC or SRC cement, micro-silica or silica fume, fly ash (PFA) and ground granulated blast furnace slag (GGBS).

When using other Ha-Be admixtures in the same concrete mixture, the products should be added separately and must not be blended prior to addition! Using more than one admixture requires suitability and preliminary tests in order to ensure the required combination of its effects is attained.

PACKAGING

- 30 l can
- 200 l barrel
- 1000 l container
- loose by bulk supply

HEALTH & SAFETY

This product is classified as hazardous according to the current regulations. Refer to the corresponding Material Safety Data Sheet for further advice.

REMARKS

This information describes the application- and processing possibilities of a product and its operation principles under regular conditions. Having no influence on the further application and processing, especially in conjunction with other construction materials, the given indications are neither a warranty in respect of the product's properties or its fitness for a particular purpose nor a full instruction of use. This information, any other recommendation or verbal advice are not binding and do not infer to any liability or legal demand.

Due to continuous further development, the most recent Technical Data Sheet is valid and will be supplied on request. All orders are accepted subject to our current general terms and conditions.

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SUITABILITY- AND PRELIMINARY TESTS ARE NECESSARY BEFORE APPLYING THE CONCRETE ADMIXTURE!

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CRITERIA	LIMIT REQUIREMENT	DURAHIT® CI25
Remaining compressive and flexural strength of concrete containing a chloride corrosion inhibiting admixture	min. 80%[A)]	
Initial and final setting time	should not be altered more than 3.5 hours[A)]	
The chloride-corrosion inhibitor complies with specification as admixture.	ASTM C494/C494M specification	
Test of the admixture shall be done according to required method	ASTM G109	
Integrated macro cell current	less than or equal to 50 C (Coulomb)	
Corroded area	less or equal to 1/3 of the corroded area[A)]	

A) *Compared to reference*

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