

Fosroc® Cebex 311

(for concrete)



constructive solutions

Highly efficient set retarding admixture suitable for the ready mix & pre-cast concrete.

Description

Cebex 311 is a chloride free, plasticising & retarding, ready to use aqueous solution based on a blend of organic compounds. It is used as a set retarding admixture in structural and mass concrete where a controlled extension of the concrete's setting time is required.

Uses

- Elevated temperatures
- Large volume pours
- Difficult placing conditions
- Long hauls
- Re-vibrated concrete
- Avoidance of cold joints

Advantages

- Provides > 4% water reduction when dosed > 0.25% by weight of cement / cementitious content.
- Increases compressive strengths and reduces permeability.
- Provides controlled extension of setting times to accommodate long haul times, or facilitate placement and finishing during hot weather concreting.
- Chloride free. Safe to use in pre stressed and reinforced concrete.

Standards compliance

- Cebex 311 complies with EN 934 – 2 Table 8 as a set retarding admixture.

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EN 934-2:2001 Admixtures for Concrete, Mortars and grout - Part 2: Concrete admixtures - definitions, requirements, conformity, marking and labelling

Technical support

Fosroc provides a technical advisory service for on site evaluation and advice on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for admixtures and products for use with fresh and hardened concrete.

Characteristics

Nature	Liquid
Colour	Straw
Specific gravity	1.150 – 1.180
pH	7 +/- 1
Chloride content	<0.1%, Chloride free
Na ₂ O equivalent	<3.0%
Freezing point	Sensitive to freezing
Air entrainment	< 2% additional air is entrained at normal dosage.

Application

Cebex 311 is supplied ready for addition to concrete at the batching plant or to the Ready Mix truck mixer on site.

Typical dosage

The typical dosage range for Cebex 311 is 0.2 % to 2 % per 100 kg of cement / cementitious content. The amount to be used will depend upon the degree of retardation required under the conditions that will be experienced on site. Longer delays in setting time or higher temperatures will require higher addition rates. For shorter extensions of the setting time or in lower ambient temperatures a lower addition rate will be required.

For each application the optimum dosage of Cebex 311 is best established by trial mixes using the same site materials, under conditions that will be experienced on site.

For further advice please contact the Fosroc Technical Department.

Dispensing

- The correct quantity of Cebex 311 should be measured by means of a suitable dispenser at the time of batching the concrete. Cebex 311 is best added with the latter part of the mixing water.

Effects of overdosing

An overdose of double the intended amount of Cebex 311 will result in a significant increase in retardation when compared to that obtained normally obtained at the intended dosage. Provided the concrete is well cured to prevent it from desiccation, the overdosed retarded concrete will normally set and recover strength within 2 – 3 days.

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Where a very large overdose has occurred the concrete may not recover its mechanical strength in a reasonable time. As a general rule : If the concrete contains an overdose of a set retarding admixture and has not completed final set in 5 days, then it may not gain useful mechanical strength within a reasonable time.

In the event of a suspected overdose please consult the Fosroc Technical Department.

Compatibility

With cements

Cebex 311 is suitable for use with all types of Portland cement and cement replacement materials e.g. GGBS, PFA and microsilica.

With other admixtures

Cebex 311 is compatible with other Fosroc Admixtures in the same concrete mix. All Admixtures should be added to the concrete separately and must not be mixed together prior to their addition. The resultant properties of concrete containing more than one admixture should be assessed by the trial mix procedure with the same site materials in use under the conditions that will be experienced on site.

Contact the Fosroc Technical Department for further advice on the effects of various admixtures.

Packaging

Cebex 311 is available in 1000 litre IBC's or 20 litre drums.

Storage

Cebex 311 has a minimum shelf life of 12 months provided the temperature is within 2 degrees C to 50 degrees C.

Should the product become frozen, the properties of Cebex 311 can be homogenised by thorough agitation of the completely thawed product.

Precaution

Health and safety

For further information consult the product safety data sheet for this product.

Fire

Cebex 311 is water based and non – flammable.



Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it.

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