

EUNISET 580-C

Concrete accelerator



Product Description

EUNISET 580C is a noncorrosive, nonchloride admixture for concrete. It accelerates cement hydration, resulting in shortened setting times and increased early compressive strengths. EUNISET 580C does not contain calcium chloride and is completely non-corrosive to reinforcing steel, metal decks, and to all metal components of admixture storage and dispensing systems. It conforms to BS EN 934-2 and to Type C of ASTM C 494.

Advantages

- Specially formulated to reduce concrete setting times and increase early strength of concrete in very cold conditions.
- May be used to reduce the time for which the concrete must be protected against freezing in ambient temperatures as low as -7°C.
- May be used to speed finishing operations and/or form removal, leading to savings in concrete construction costs.
- Provides set acceleration and early strength development similar to that provided by calcium chloride, but without the potential corrosive effects.
- Can be used where potential corrosion of embedded or stressed steel must be avoided.
- Can be used in concrete that is to be placed on steel clad or zinc coated steel decks where corrosion must be avoided.
- In common with most concrete accelerators, the inclusion of EUNISET 580C may reduce the ultimate compressive strength of concrete. The extent of strength loss should be established by conducting concrete trial mixes.

Typical Properties

Appearance: Light Brown Liquid

Air Entrainment: Nil

Chloride Content: Nil as per BS EN 480-10

Freezing Point: -23°C

Storage Life in Manufacturer's Drums: 12 months from date of manufacture.

Storage Life in Bulk Storage: 12 months from date of delivery.

Compatibility

With cements: In concrete mixtures, EUNISET 580C accelerates the chemical reaction between Portland cement and water. It speeds up the formation of gel – the binder that bonds concrete aggregates together. Accelerated gel formation, shortens the setting time of concrete, compensates for the set slowing effects of cold weather and contributes to the development of higher strength. Gel formation promotes heat generation within the mixture, helping to protect the concrete from freezing during the critical first hour after placement.

With other admixtures: EUNISET 580C is compatible with air entraining admixtures such as the EUNIAIR AE Series; water reducers such as EUNICEM P7; mid-range water reducers such as EUNICEM P20, and high-range water reducers such as EUNICEM 205. EUNISET 580C should not be premixed under any circumstances with other admixtures. While some admixtures can be usefully combined within the same mix the performance of this product may well be affected by the presence of other chemicals and we recommend that European Concrete Additives be contacted for advice in all such circumstances.

Addition Rates Range

500 ml – 4000 ml per 100 kg cement (0.5%- 4.0% volume by weight of cement) the amount of EUNISET 580C used will depend on specific job conditions, on local materials and on the degree

of set acceleration and early strength development required. Typical addition levels range from 500 ml to 2000 ml/100 kg cement, but levels as high as 4000 ml/100 kg cement can be used. EUNISET 580C is supplied ready for use. Since EUNISET 580C may be used at high dosages, the concrete producer should account for the water contained in the EUNISET 580C. One liter of EUNISET 580C weighs approximately 1.40 kg and added to a concrete mixture will contribute 0.77 kg of water to that mixture.

Effects of Overdosing

Overdosing of EUNISET 580C will produce an increased rate of setting and a reduction of the ultimate concrete strength.

Dispensing

A range of equipment, advice on supply and fitting are available from European Concrete Additives on request. EUNISET 580C may be introduced on the sand, in the water, or at the end of the batch of cycles. Similar to all concrete admixtures, EUNISET 580C should not come in contact with other admixtures prior to entering the concrete.

Health and Safety

For further information see the EUNISET 580C Material Safety Data Sheet, or consult European Concrete Additives.

Packaging

EUNISET 580C is supplied in 1000 liter, returnable containers. Alternatively, 1000 liter IBCs or bulk deliveries can be arranged.

Storage

EUNISET 580C should be stored in original containers or suitable closed tanks, preferably out of direct sunlight and protected from extremes of temperature.

Technical Service

The Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

Contact Information

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