

Calcium Nitrite corrosion inhibiting admixture

Uses

As a corrosion inhibiting admixture for use in concrete where Calcium Nitrite is required.

Advantages

- Calcium Nitrite acts as a corrosion inhibitor in reinforced concrete
- Can be used in conjunction with other admixtures
- Will not affect workability or strength of concrete
- Shall be suitable for protection of reinforcement against chloride attack of marine atmosphere

Description

Conplast CN admixture is based on Calcium Nitrite. It is supplied as a pale straw coloured solution that instantly disperses in water.

Technical support

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

Typical dosage

The dosage of Conplast CN should be as determined in the concrete mix specification depending on the chloride ions expected at the surface of the steel within the life expectancy of the concrete structure.

Based upon FHWA recommended 0.90 chloride to nitrite ratio 30% CaNO₂ Sol.

Chloride threshold kg/m ³	Recommended dosage of calcium nitrite admixture(litres/m ³)
3.62	15.0
4.21	17.5
5.40	22.5
5.99	25.0
6.39	27.3
7.18	30.0

Dosage is normally in the range of 7.5 to 22.5 litre / m³ (approx. 2 - 6 % by weight of cement). The following table may be used for guidance. The level of corrosion inhibition increases with dosage.

Properties

Appearance	: Pale straw coloured liquid
Specific gravity	: Typically 1.25 - 1.30 at 30°C
Chloride content	: Nil to BS 5075

Application instructions

Compatibility

Conplast CN 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 addition. The performance of concrete containing more than one admixture should be assessed by trial mixes to ensure the desired combination of effects is obtained.

Conplast CN is suitable for use with ordinary Portland cement. Contact Fosroc for advice on use with sulphate resisting cements and cement replacement materials.

Dispensing

The correct quantity of Conplast CN should be measured by means of a recommended dispenser. The admixture should then be added to the concrete with the mixing water to obtain the best results.

Contact Fosroc for advice regarding suitable dispensing equipment and its installation.

Curing

As with all structural concrete, good curing practices should be maintained. Water spray, wet hessian or a Concure spray applied curing membranes should be used.

Limitations

Normal precautions for cold weather concreting should be followed where Conplast CN is used.

Conplast CN

Estimating

Packaging

Conplast CN is available in 200 litre containers.

Storage

Conplast CN has a minimum shelf life of 12 months provided the temperature is kept within the range of 2°C to 50°C.

Conplast CN is an oxidising agent and should be stored away from reducing agents and combustible materials.

Precautions

Health and Safety

Conplast CN is toxic and should not be swallowed or allowed to come into contact with skin and eyes. Wear suitable protective gloves and goggles. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

Fire

Conplast CN is water based and non flammable but should be stored away from combustible materials.

Cleaning and disposal

Spillages of Conplast CN should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Do not allow Conplast CN to enter rivers or drains. The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.