# Flocrete CN30

Corrosion inhibiting admixture for reinforced concrete



## DESCRIPTION

Flocrete CN30 is a calcium nitrite based concrete admixture which acts as a corrosion inhibitor for steel reinforced concrete. Flocrete CN30 contains a minimum of 30% of calcium nitrite.

#### APPLICATIONS

- » Recommended for all types of steel reinforced concrete that will be exposed to chlorides environments or deicing salts.
- To provide protection against corrosion in reinforced concrete.

## **ADVANTAGES**

- » Extends working life of reinforced concrete structures.
- » Compatible with other admixtures.

#### PROPERTIES

Flocrete CN30 provides protection to the steel reinforcement in concrete by interacting with the reinforcement steel at the contact surface with the concrete protecting the passivating layer and significantly delaying corrosion initiation and slowing down corrosion rate.

## COMPATIBILITY

Flocrete CN30 can be used with all types of Portland cement and cement replacement materials. Flocrete CN30 is compatible with other DCP admixtures used in the same concrete mix.

If more than one type of admixture is to be used in concrete mix, they must be dispensed to the concrete separately.

#### STANDARDS

Flocrete CN30 complies with ASTM C494, Type C.

#### METHOD OF USE

Flocrete CN30 should be added to the concrete with the mixing water to achieve optimum performance.

An automatic dispenser should be used to dispense the correct quantity of Flocrete CN30 to the concrete mix.

#### **TECHNICAL PROPERTIES @ 25°C:**

Colour:	Turbid yellowish liquid
Freezing point:	≈ -10°C
Specific gravity:	1.30 ± 0.01
Calcium nitrite content:	30%
Chloride content: BS 5075	Nil
Air entrainment:	Typically less than 2% additional air is entrained above control mix at normal dosages

#### DOSAGE

The recommended dosage of Flocrete CN30 is 7.5 - 30.0 litre/m<sup>3</sup> of concrete, depending on the chloride exposure conditions.

Table 1 can be used as guide to show the level of chloride protection at different dosages. Flocrete CN30 water content should be included in W/C ratio calculation.

Dosage rate of Flocrete CN30 ltr/m <sup>3</sup>	Chloride kg/m³
10	3.5
12	4.7
15	5.9
17	6.8
20	7.7
22	8.3
25	9.2
30	

#### SETTING TIME

- i. The presence of Flocrete CN30 in the concrete mix will decrease the initial and final setting time.
- ii. Trial mixes should be carried out to determine the effect of Flocrete CN30 on setting time.



- i. DCP retarding admixtures can be used to prevent slump loss or finishing problems which may occur because of accelerating property of Flocrete CN30.
- ii. Flocrete CN30 can be used for cold weather concreting due to its set accelerating properties.
- iii. Accelerating properties should be considered when scheduling concrete placement operations, particularly the mixing time, transportation time, compaction and presence of cold joints.

#### CLEANING

Flocrete CN30 spillage should be collected with a suitable absorbent like sand or vermiculite and transferred into suitable containers. Flocrete CN30 should not be allowed to enter sewers or open bodies of water.

If the spillages dried, the material is classified as ignitable waste.

Dispose of in accordance with local environmental regulations.

## PACKAGING

Flocrete CN30 is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

#### STORAGE

Flocrete CN30 has a shelf life of 12 months from date of manufacture if stored at temperatures between  $2^{\circ}C$  and  $50^{\circ}C$ .

Drums must be rolled before use. Bulks must have a recirculation pump.

If these conditions are exceeded, DCP Technical Department should be contacted for advice.

## Flocrete CN30

#### CAUTIONS

## HEALTH AND SAFETY

Flocrete CN30 is classified as hazardous material. Flocrete CN30 should not come into contact with skin and eyes. In case of contact with eyes wash immediately with plenty of water and seek medical advice promptly.

For further information refer to the Material Safety Data Sheet.

#### FIRE

Flocrete CN30 is nonflammable.

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- » Grouts and anchors.
- » Concrete repair.
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- » Protective coatings.
- » Sealants.
- » Waterproofing.
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- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.

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Note:

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