

Donplast[®] CN30

Corrosion inhibiting admixture for reinforced concrete



DESCRIPTION

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

APPLICATIONS

- » Recommended for all types of steel-reinforced concrete in environments that have exposure to chlorides or de-icing salts.
- » Protects against steel corrosion in reinforced concrete.

ADVANTAGES

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

PROTECTION MECHANISM

Donplast CN30 protects the steel reinforcement in concrete by interacting with the reinforcement steel at the contact surface with the concrete protecting the passivation layer and significantly delaying corrosion initiation and slowing down the corrosion rate.

COMPATIBILITY

Donplast CN30 is suitable to use with all types of Portland cement and cement replacement materials. Donplast CN30 is compatible with other DCP admixtures used in the same concrete mix.

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

STANDARDS

Donplast CN30 complies with the requirements of Specification for Chemical Admixture for Concrete ASTM C494 as a Type C admixture.

METHOD OF USE

Donplast 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 Donplast CN30 to the concrete mix.

TECHNICAL PROPERTIES @ 77°F (25°C):

Color:	Light yellow liquid
Freezing point:	≈ 14°F (-10°C)
Specific gravity:	1.30 ± 0.03
pH:	8 - 11
Chloride content:	Chloride-free

DOSAGE

The recommended dosage of Donplast CN30 is 2.0 – 6.0 gal/yd³ (10 - 30 liters/ m³) of concrete, depending on the chloride exposure conditions.

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

Table 1

Dosage rate of Donplast CN30 (gal/yd ³)	Chloride content (lbs/yd ³)
2.0	6.0
2.5	8.0
3.0	9.9
3.5	11.5
4.0	13.0
4.5	14.1
5.0	15.0
6.0	16.0

SETTING TIME

- » The presence of Donplast CN30 in the concrete mix will decrease the initial and final setting time.
- » Trial mixes should be carried out to determine the effect of Donplast CN30 on the setting time.
- » DCP retarding admixtures can be used to prevent slump loss or finishing problems which may occur because of the accelerating property of Donplast CN30.
- » Donplast CN30 can be used for cold weather concreting due to its set accelerating properties.
- » Accelerating properties should be considered when scheduling concrete placement operations, particularly the mixing time, transportation time, compaction and presence of cold joints.



Donplast® CN30

CLEANING

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

If the spillages have dried, the material is classified as ignitable waste. Dispose of in accordance with local environmental regulations.

Note: For best results, quality concrete is necessary to slow the ingress of chloride into the concrete, therefore all pertinent codes and guides should be consulted prior to final approval of the mix design, including ACI 318, "Building Codes Requirements for Reinforced Concrete" which requires certain design constraints, such as maximum water to cement ratio and providing the proper cover of concrete over reinforcing steel.

PACKAGING

Donplast CN30 is available in 5 gal (19 litre) containers as well as 275 gal (1,041 litre) totes. Bulk supply in tanker trucks is also available upon request.

STORAGE

Donplast CN30 has a shelf life of 12 months from date of manufacture if stored in dried conditions at temperatures between 50°F and 95°F (10°C and 35°C).

Donplast CN30 should be kept at above 46°F (8°C). If crystals form, material should be stored at room temperature and agitated thoroughly to return to normal state.
Protect from direct sunlight.

If these conditions are exceeded, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

Donplast CN30 is classified as a hazardous material. Donplast CN30 should not come into contact with skin and eyes.

In case of contact with eyes, immediately flush with plenty of water and seek medical attention.

For further information, refer to the Material Safety Data sheet.

FIRE

Donplast CN30 is nonflammable.

WARRANTY

Unless expressly stated otherwise in the Sales Documents, the Limited Warranty shall expire on the expiry date listed on the Product's label or packaging. The full text of DCP's limited warranty is found in DCP's standard terms and conditions of sale (the "Terms"), which are available at [DCP Website/USA – Terms & Conditions](#). DCP's limited warranty is in all cases subject to, and conditioned upon, the Terms.

MORE FROM DON CONSTRUCTION PRODUCTS

A wide range of construction chemical products are manufactured by DCP which include:

- » Concrete admixtures.
- » Surface treatments
- » Grouts and anchors.
- » Concrete repair.
- » Flooring systems.
- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.

Don Construction Products Inc.

Lancaster, SC 2970, USA

info.usa@dcp-int.com

www.dcp-int.com

Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

www.dcp-int.com

DCP Building Excellence