

# Hyperplast PC411

High range water reducing admixture with workability retention properties



## Description

Hyperplast PC411 is a high performance superplasticising admixture based on polycarboxylic ether polymers with long chains specially designed to enable the water content of the concrete to perform more effectively.

This effect can be used in high strength concrete and flowable concrete mixes, to achieve highest concrete durability and performance.

## Applications

- ▲ High strength and high performance concrete.
- ▲ Structures with congested reinforcement.
- ▲ Improved cohesion allow for use in mass concrete pours and piling.

## Advantages

- ▲ Optimises cement utilisation.
- ▲ High density and impermeable concrete through very high water reduction.
- ▲ Improves shrinkage and creep behaviours.
- ▲ Minimizes segregation and bleeding problems by improving cohesion.
- ▲ Higher early and ultimate compressive strengths.
- ▲ Increases durability and resistance to aggressive atmospheric conditions thorough reduced permeability.

## Standards

Hyperplast PC411 complies with ASTM C494, Type G and EN 934, Part 2, Table 11.1.

## Compatibility

Hyperplast PC411 can be used with all types of Portland cement and cement replacement materials. Hyperplast PC411 should not be used in conjunction with other admixtures unless DCP technical department approval is obtained.

## Method of Use

Hyperplast PC411 should be added to the concrete with the mixing water to achieve optimum performance.

## Technical Properties @ 25°C

Colour:	Yellowish to brownish liquid
Specific gravity:	1.05 ± 0.02
Freezing point:	≈ -1°C
Chloride content: EN 934, Part 2	Nil
Air entrainment:	Typically less than 2% additional air is entrained above control mix at normal dosages

Automatic dispenser should be used to dispense the correct quantity of Hyperplast PC411 to the concrete mix.

## Dosage

The guidance dosage of Hyperplast PC411 is 0.40 - 3.00 litre per 100 kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Representative trials should be conducted to determine the optimum dosage of Hyperplast PC411 to meet the performance requirements by using the materials and conditions in actual use.

## Effects of over dosage

Over dosing of Hyperplast PC411 will cause the following:

- ▲ Significant increase in retardation.
- ▲ Increase in workability.

Ultimate concrete strength will not be adversely affected and will generally be increased provided that proper concrete curing is maintained.

## Cleaning

Hyperplast PC411 can be washed with fresh cold water.

## Packaging

Hyperplast PC411 is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

### DCP Saudi Co.

*Riyadh Offices:*

Exit 9, Al Izdehar, Beside ACDelco Petrol Station

*Jeddah Offices:*

Al-Henaki Business Center, Tower C

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## Storage

Hyperplast PC411 has a shelf life of 12 months from date of manufacture if stored at temperatures between 2°C and 50°C.

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

## Cautions

### Health and Safety

Hyperplast PC411 is not classified as hazardous material. Hyperplast PC411 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

Hyperplast PC411 is nonflammable.

## More from Don Construction Products

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

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#### Note:

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