# Hyperplast PC690



High range water reducing admixture with workability retention properties

#### **DESCRIPTION**

Hyperplast PC690 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 through reduced permeability.

# **STANDARDS**

Hyperplast PC690 complies with ASTM C494, Type F.

## COMPATIBILITY

Hyperplast PC690 is suitable to use with all types of Portland cement and cement replacement materials. Hyperplast PC690 should not be used in conjunction with other admixtures unless DCP technical department approval is obtained.

# TECHNICAL PROPERTIES @ 25°C:

Colour: Yellowish to brownish liquid

Specific gravity:  $1.080 \pm 0.02$ 

Freezing point: ≈ -1°C

Chloride content: EN 934, Part 2 Nil

Typically less than 2%

additional air is entrained above control mix at normal

dosages

## **METHOD OF USE**

Air entrainment:

Hyperplast PC690 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 Hyperplast PC690 to the concrete mix.

#### DOSAGE

The recommended dosage of Hyperplast PC690 is 0.5 to 3.0% of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Representative trials should be conducted to determine the optimum dosage of Hyperplast PC690 to meet the performance requirements by using the materials and conditions in actual use.

# **EFFECTS OF OVERDOSAGE**

Overdosage of Hyperplast PC690 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**

Clean Hyperplast PC690 with fresh cold water.

#### **PACKAGING**

Hyperplast PC690 is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

#### **STORAGE**

Hyperplast PC690 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, contact DCP Technical Department for advice.

#### **CAUTIONS**

## **HEALTH AND SAFETY**

Hyperplast PC690 is not classified as a hazardous material. Hyperplast PC690 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**

Hyperplast PC690 is nonflammable.

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- Grouts and anchors.
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- » Protective coatings.
- » Sealants.
- » Waterproofing.
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- » Building products.
- » Structural strengthening.

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