# Hyperplast PC175 F1

High performance polycarboxylic based superplasticiser



#### **DESCRIPTION**

Hyperplast PC175 F1 is a high performance super plasticising admixture based on polycarboxylic polymers with long chains specially designed to enable the water content of the concrete to perform more effectively as well as increasing the workability retention and cohesion of fresh concrete mixes.

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**

- » Increases workability retention and cohesion.
- » Optimises cement utilization.
- » High density and impermeable concrete through very high water reduction.
- » Improves shrinkage and creep behaviors.
- » 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 PC175 F1 complies with ASTM C494, Type F and G, depending on dosage used.

# COMPATIBILITY

Hyperplast PC175 F1 is suitable to use with all types of Portland cement and cement replacement materials. Hyperplast PC175 F1 should not be used in conjunction with other admixtures unless DCP technical department approval is obtained.

#### **METHOD OF USE**

Hyperplast PC175 F1 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 PC175 F1 to the concrete mix.

# **TECHNICAL PROPERTIES @ 25°C**

Color: Yellowish liquid

pH:  $6 \pm 1.0$ 

Specific gravity:  $1.07 \pm 0.02$ 

Chloride content: Ni

#### **DOSAGE**

The recommended dosage of Hyperplast PC175 F1 is 0.40 - 2.50 liters/ 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 PC175 F1 to meet the performance requirements by using the materials and conditions in actual use.

#### **EFFECTS OF OVER DOSAGE**

Overdosage of Hyperplast PC175 F1 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 PC175 F1 with fresh cold water.

## **PACKAGING**

Hyperplast PC175 F1 is available in 25 liters pails, 210 liters drums and 1000 liters bulks supply.

# STORAGE

Hyperplast PC175 F1 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 PC175 F1 is not classified as a hazardous material. Hyperplast PC175 F1 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 PC175 F1 is nonflammable.

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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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