## Hyperplast PC505



High performance polycarboxylic ether based superplasticiser

#### **DESCRIPTION**

Hyperplast PC505 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 utilization.
- > Improves shrinkage and creep behaviors.
- » High density and impermeable concrete through very high water reduction.
- » Higher early and ultimate compressive strengths.
- Minimizes segregation and bleeding problems by improving cohesion.
- Increases durability and resistance to aggressive atmospheric conditions thorough reduced permeability.

#### **COMPATIBILITY**

Hyperplast PC505 is suitable to use with all types of Portland cement and cement replacement materials. Hyperplast PC505 should not be used in conjunction with other admixtures unless DCP Technical Department approval is obtained.

#### **STANDARDS**

Hyperplast PC505 complies with ASTM C494, Type G and BS EN 934-2, Table 11.1/11.2.

#### **METHOD OF USE**

Hyperplast PC505 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 PC505 to the concrete mix.

### TECHNICAL PROPERTIES @ 25°C:

Colour: Yellowish to brownish liquid

Specific gravity:  $1.06 \pm 0.02$ 

Freezing point: ≈ -1°C

Typically less than 2% additional air is entrained

Air entrainment: adultional all is entrained above control mix at normal

dosages

#### **DOSAGE**

The recommended dosage of Hyperplast PC505 is 0.6 - 2.5 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 PC505 to meet the performance requirements by using the materials and conditions in actual use.

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

Overdosage of Hyperplast PC505 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 PC505 with fresh cold water.

#### **PACKAGING**

Hyperplast PC505 is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

#### **STORAGE**

Hyperplast PC505 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 PC505 is not classified as a hazardous material. Hyperplast PC505 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 PC505 is nonflammable.

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- » Surface treatments
- >> Grouts and anchors.
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- » Protective coatings.
- » Sealants.
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- » Adhesives.
- » Tile adhesives and grouts.
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- » Structural strengthening.

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#### Note:

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