

Hyperplast PC677

High range water reducing admixture with workability retention properties



Description

Hyperplast PC677 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 PC677 complies with EN 934, Part 2, Table 11.1, ASTM C494, Type F and G, depending on used dosage.

Compatibility

Hyperplast PC677 is suitable to use with all types of Portland cement and cement replacement materials. Hyperplast PC677 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:	1.07 ± 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

Method of Use

Hyperplast PC677 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 PC677 to the concrete mix.

Dosage

The recommended dosage of Hyperplast PC677 is 0.40 - 2.50 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 PC677 to meet the performance requirements by using the materials and conditions in actual use.

Effects of Over Dosage

Overdosage of Hyperplast PC677 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.

DCP Saudi Co.

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Cleaning

Clean Hyperplast PC677 with fresh cold water.

Packaging

Hyperplast PC677 is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

Storage

Hyperplast PC677 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 PC677 is not classified as a hazardous material. Hyperplast PC677 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 PC677 is nonflammable.

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- ▲ 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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