

Hyperplast PC550

High performance concrete admixture based on polycarboxylic polymers



Description

Hyperplast PC550 is a high performance superplasticising admixture based on polycarboxylic 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.
- ▲ Pre-cast concrete.
- ▲ Self compacting concrete.
- ▲ Improved cohesion allow for use in mass concrete pours and piling.
- ▲ Structures with congested reinforcement.

Advantages

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

Compatibility

Hyperplast PC550 can be used with all types of Portland cement and cement replacement materials. Hyperplast PC550 should not be used in conjunction with other admixtures unless DCP Technical Department approval is obtained.

Standards

Hyperplast PC550 complies with ASTM C494, Type G and BS EN 934, Part 2, Table 11.1.

Method of Use

Hyperplast PC550 should be added to the concrete with the mixing water to achieve optimum performance.

Technical Properties @ 25°C:

Colour:	Yellowish to brownish liquid
Freezing point:	≈ -3°C
Specific gravity:	1.09 ± 0.02
Chloride content:	Nil
Air entrainment:	Typically less than 2% additional air is entrained above control mix at normal dosages

An automatic dispenser should be used to dispense the correct quantity of Hyperplast PC550 to the concrete mix.

Dosage

The guidance dosage of Hyperplast PC550 is 0.5 - 2.0 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 PC550 to meet the performance requirements by using the materials and conditions in actual use.

Effects of Over Dosage

Over dosing of Hyperplast PC550 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 PC550 can be washed with fresh cold water.

Packaging

Hyperplast PC550 is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

Don Construction Products Qatar W.L.L

New Industrial Area, Street 21,
Zone 81, bldg. # 9
Doha - Qatar

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Storage

Hyperplast PC550 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 PC550 is not classified as hazardous material. Hyperplast PC550 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 PC550 is nonflammable.

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- ▲ Surface treatments
- ▲ Grouts and anchors.
- ▲ Concrete repair.
- ▲ Flooring systems.
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- ▲ Waterproofing.
- ▲ Adhesives.
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