Hyperplast PC175

High performance polycarboxylic based superplasticiser

Description

Hyperplast PC175 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.

This effect can be used in high strength concrete and flowable concrete mixes, to achieve the highest concrete durability and performance, as well as maintaining the workability retention of fresh concrete mixes.

Applications

- High strength and high performance concrete.
- Structures with congested reinforcement.
- Improved cohesion allow for use in mass concrete pours and piling.
- Suitable for long concrete deliveries.

Advantages

- Optimises cement utilization.
- High density and impermeable concrete through very high water reduction.
- Improves workability retention.
- 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 complies with ASTM C494, Type F & G, depending on dosage used.

Compatibility

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

Technical Properties @ 25°C	
Color:	Yellowish liquid
pH:	6 ± 1.0
Specific gravity:	1.07 ± 0.02
Chloride content:	Nil

Method of Use

Hyperplast PC175 should be added to the concrete with the mixing water to achieve optimum performance.

Automatic dispenser should be used to dispense the correct quantity of Hyperplast PC175 to the concrete mix.

Dosage

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

Effects of over dosage

Over dosing of Hyperplast PC175 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 PC175 can be washed with fresh cold water.

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Packaging

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

Storage

Hyperplast PC175 shelf life is 12 months 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 is not classified as hazardous material.
Hyperplast PC175 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 PC175 is non flammable.

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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.