

Hyperplast PC144S

High performance polycarboxylic based superplasticizer



Description

Hyperplast PC144S is a high performance superplasticizing 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.
- ▲ Structures with congested reinforcement.
- ▲ Improved cohesion allow for use in mass concrete pours and piling.

Advantages

- ▲ 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 PC144S complies with ASTM C494, Type F & G, depending on dosage used.

Compatibility

Hyperplast PC144S is suitable to use with all types of Portland cement and cement replacement materials. Hyperplast PC144S should not be used in conjunction with other admixtures unless DCP technical department approval is obtained.

Technical Properties @ 25°C:

Colour:	Brownish liquid
Specific gravity:	1.04 ± 0.02
Freezing point:	≈ -1°C
Chloride content:	Nil
Air entrainment:	Typically less than 2% additional air is entrained above control mix at normal dosages

Method of Use

Hyperplast PC144S 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 PC144S to the concrete mix.

Dosage

The recommended dosage of Hyperplast PC144S is 1.0 - 3.0 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 PC144S to meet the performance requirements by using the materials and conditions in actual use.

Effects of Over Dosage

Overdosage of Hyperplast PC144S 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.

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Exit 9, Al Izdehar, Beside ACDelco Petrol Station

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Al-Henaki Business Center, Tower C

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Cleaning

Clean Hyperplast PC144S with fresh cold water.

Packaging

Hyperplast PC144S is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

Storage

Hyperplast PC144S 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 PC144S is not classified as a hazardous material. Hyperplast PC144S 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 PC144S is nonflammable.

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A wide range of construction chemical products are manufactured by DCP which include:

- ▲ 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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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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