

Hyperplast PC678R

High performance early strength concrete hyperplasticiser



Description

Hyperplast PC678R is a high performance early strength concrete hyperplasticising 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

- ▲ Improved cohesion allowing for use in mass concrete pours and piling.
- ▲ Structures with congested reinforcement.
- ▲ High strength and high performance concrete.
- ▲ Pre-cast concrete.
- ▲ Concrete block.
- ▲ Self compacting concrete.
- ▲ Coloured masonry products.

Advantages

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

Compatibility

Hyperplast PC678R is suitable to use with all types of Portland cement and cement replacement materials. Hyperplast PC678R should not be used in conjunction with other admixtures unless DCP technical department approval is obtained.

Standards

Hyperplast PC678R complies with ASTM C494 Type, F and E, depending on dosage used.

Technical Properties @ 25°C:

Colour:	Light yellow liquid
Freezing point:	≈ -5°C
Specific gravity:	1.08 ± 0.02
Air entrainment:	Typically less than 2% additional air is entrained above control mix at normal dosages

Method of Use

Hyperplast PC678R 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 PC678R to the concrete mix.

Dosage

The recommended dosage of Hyperplast PC678R is 0.2 to 2.0 litre per 100 kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Trials should be conducted to determine the optimum dosage of Hyperplast PC678R to meet the performance requirements by using the materials and conditions in actual use.

Effects of Over Dosage

Overdosage of Hyperplast PC678R will cause the following:

- ▲ Significant increase in retardation.

Ultimate concrete strength will not be adversely affected and will generally be increased provided that proper concrete curing is maintained.

Cleaning

Clean Hyperplast PC678R with fresh cold water.

Hyperplast PC678R

Packaging

Hyperplast PC678R is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

Storage

Hyperplast PC678R 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 PC678R is not classified as a hazardous material.

Hyperplast PC678R 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 PC678R is nonflammable.

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- ▲ Concrete admixtures.
- ▲ Surface treatments
- ▲ Grouts and anchors.
- ▲ Concrete repair.
- ▲ Flooring systems.
- ▲ Protective coatings.
- ▲ Sealants.
- ▲ Waterproofing.
- ▲ Adhesives.
- ▲ Tile adhesives and grouts.
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- ▲ 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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