

Hyperplast PC403

High performance concrete admixture based on polycarboxylic polymers



Description

Hyperplast PC403 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 highest concrete durability and performance.

Applications

- ▲ High strength and high performance concrete.
- ▲ To produce high quality concrete of improved durability and water tightness.
- ▲ Improved cohesion allow for use in mass concrete pours and piling.

Advantages

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

Compatibility

Hyperplast PC403 can be used with all types of Portland cement and cement replacement materials. Hyperplast PC403 should not be used in conjunction with other admixtures unless DCP Technical Department approval is obtained.

Standards

Hyperplast PC403 complies with ASTM C494, Type G and F, depending on the used dosage

Method of Use

Hyperplast PC403 should be added to the concrete with the mixing water to achieve optimum performance.

Technical Properties @ 25°C:

| | |
|-------------------|--|
| Appearance: | Yellowish liquid |
| Specific gravity: | 1.03 ± 0.02 |
| Chloride content: | Nil |
| pH: | 6 - 7 |
| 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 PC403 to the concrete mix.

Dosage

The guidance dosage of Hyperplast PC403 is 0.5 - 3.0 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 PC403 to meet the performance requirements by using the materials and conditions in actual use.

Effects of Over Dosage

Over dosing of Hyperplast PC403 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 PC403 can be washed with fresh cold water.

Packaging

Hyperplast PC403 is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

Hyperplast PC403

Storage

Hyperplast PC403 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 PC403 is not classified as hazardous material. Hyperplast PC403 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 PC403 is nonflammable.

More from Don Construction Products

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.

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.

