# Hyperplast ES901



High performance early strength concrete hyperplasticiser (Formerly known as Hyperplast PC901)

#### **DESCRIPTION**

Hyperplast ES901 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**

- » High strength and high performance concrete.
- Structures with congested reinforcement.
- » Pre-cast concrete.
- >> Improved cohesion allowing for use in mass concrete pours and piling.
- » Self compacting concrete.

# **ADVANTAGES**

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

# COMPATIBILITY

Hyperplast ES901 can be used with all types of Portland cement and cement replacement materials. Hyperplast ES901 should not be used in conjunction with other admixtures unless DCP technical department approval is obtained.

#### **STANDARDS**

Hyperplast ES901 complies with ASTM C494 Type F & E, depending on dosage used.

#### **METHOD OF USE**

Hyperplast ES901 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 ES901 to the concrete mix.

# **TECHNICAL PROPERTIES @ 25°C:**

Colour: Light yellow liquid

Freezing point: ≈ -11°C

Specific gravity:  $1.07 \pm 0.02$ 

Typically less than 2% additional air is entrained

above control mix at normal

dosages

# **DOSAGE**

Air entrainment:

The recommended dosage of Hyperplast ES901 is 0.5 to 3.0 litre per 100kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Trials should be conducted to determine the optimum dosage of Hyperplast ES901 to meet the performance requirements by using the materials and conditions in actual use.

# **EFFECTS OF OVER DOSAGE**

Overdosage of Hyperplast ES901 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 ES901 with fresh cold water.

# **PACKAGING**

Hyperplast ES901 is available in 25 litre jerrycan, 210 litre drums and 1000 litre bulks supply.

# STORAGE

Hyperplast ES901 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 ES901 is not classified as hazardous material. Hyperplast ES901 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 ES901 is nonflammable.

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- » Grouts and anchors.
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- » Building products.
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