

# Polycarboxylate High Range Water Reducer/Super Plasticiser PC-707

## TECHNICAL DATA

### 1.0 DESCRIPTION

PC-707 is a high-performance, polycarboxylate concrete additive with high range water reducing properties to provide high workability and high early age strength.

Compared with a control sample, addition of PC-707 significantly reduces the mixing water required and therefore produces a higher-quality, reduced viscosity, more-workable concrete. PC-707 has a pronounced plasticizing effect on high-strength concrete and provides a longer working time compared to other products.

Compared with older generation low-range and mid-range water-reducing admixtures, PC-707 does not retard the mix's set time. This is important in the precast concrete industry where high early strengths are required to meet production schedules.

PC-707 may be used in a wide range of concrete applications.

### 2.0 PROPERTIES

2.1. Colour	Pale amber to brown, clear or slightly turbid liquid.
2.2. pH:	4
2.3. Specific Gravity (20°C)	1.07
2.4. Flash Point	Non-Flammable
2.5. Viscosity	Low
2.6. Chloride Content (%)	<0.01
2.7. Toxicity	Non-Toxic
2.8. D.G. Classification	Non-Hazardous
2.9. Shelf Life	1 year in sealed containers as supplied. Protect from frost.

### 3.0 USES

PC-707 can be used in:

- Site concrete to adjust slump and increase workability without adding extra water
- Fibre reinforced concrete to aid with workability without adding additional water
- Production of self-consolidating concrete mixes such as those used in the precast industry
- Concrete requiring extended workability and/or high early age compressive strength.
- Reducing water in Ready Mix Concrete mixes whilst maintaining target slump.

# PC-707

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## TECHNICAL DATA Continued

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### 4.0 APPLICATION INSTRUCTIONS

#### Usage:

PC-707 should be shaken or mixed well before using. It can be used with any cement conforming to relevant standards. PC-707 is compatible with most other admixtures, however do not mix with polynaphthalene sulfonates. Add each admixture **separately** and check results. Adding admixtures together can produce unexpected and undesirable results. A trial batch is recommended where possible.

Batching Plant: Add PC-707 to the water prior to mixing. Allow 1 minute mixing per cubic metre of concrete. Note the effect on slump over a given time and plan deliveries accordingly.

Concrete truck: Add PC-707 directly to the mixer, then mix on maximum speed for a timed 5 minutes.

#### Addition:

The normal addition rate of PC-707, as supplied, is 0.2 - 0.5 kg per 100 kg cement (0.2 – 0.5%).

Start at the low end of the range (0.2kg) and mix well. Increase dosage of PC-707 only if necessary.

An ideal water-to-cement ratio is 0.42 – 0.45 (depending on requirements, mix design, etc).

The exact dosage required is determined by site trials. Important considerations include accurately determining water to cement ratio, aggregate moisture correction, aggregate used, cement type, other admixtures used, etc.

**DO NOT** overdose with PC-707. Add a small quantity to start with and then increase only if necessary. Ensure the PC-707 is thoroughly mixed into the concrete and the change in slump checked before adding more. Excessive superplasticiser can cause the concrete to segregate. PC-707 is very efficient and less PC-707 is required compared to older generation superplasticisers.

Important: PC-707 does not contain a defoamer. When a specific level of air entrapment is required or when using PC-707 at higher dosages, then use a defoamer.

Refer to Product Safety Data Sheet for first aid and handling information.

### 5.0 PACKAGING

4, 20 and 200-litre containers.



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