

Plastit® CL

Accelerating Admixture for Cementitious Mortar and Unreinforced Concrete (Including Chloride)

Uses

- To accelerate the stiffening and early strength gain of Portland cement concrete and mortar
- Typical applications include Unreinforced Concrete or mortar placed in cold weather

Advantages

- Particularly effective in assisting to offset the delaying effect of low temperatures on setting and strength gain
- Accelerated setting gives added protection against early age frost attack
- Also provides a degree of water reduction or increased workability
- Suitable for use in bricklaying mortar

Standards compliance

Plastit CL complies with BS 5075 Part 1 and with ASTM C494 as type C and ISIRI 2930.

Description

Plastit CL is a Included Chloride accelerating admixture based on Calcium Chloride salts. It is supplied as a green coloured solution that instantly disperses in water. Plastit CL accelerates the early stages of cement hydration, producing more rapid stiffening and allowing strength gain to commence at an earlier stage. This effect is particularly noticeable at low temperatures and is most significant in the first 24 hours after mixing.

Typical Dosage

The optimum dosage of Plastit CL to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. A starting point for such trials is to use a dosage within the normal typical range of 1.00 to 5.00 kg/100 kg of cementitious materials.

Effects of overdosing

An overdose of double the intended amount of Plastit CL may result in increased acceleration. In common with other accelerators this may slightly reduce the ultimate strength of the concrete and mortar.

Testing has shown no detrimental effect on embedded steel even at four times overdose.

Properties

Appearance	Yellow coloured liquid
Specific gravity	Typically 1.12 @ 20°C
Air entrainment	Typically less than 2%. Additional air is entrained at normal dosages.
Alkali content	Typically less than 1.5 g. Na ₂ O equivalent/litre of admixture. A fact sheet on this subject is available.

Instructions for use

Compatibility:

<http://capco.am/products/concrete-admixture/>

Plastit CL is compatible with other CAPCO admixtures in the same concrete mix. The admixtures must be added to the concrete separately with the mixing water and must not be directly mixed together prior to addition. The performance of concrete containing more than one admixture should be assessed by trial mixes to ensure the desired combination of effects is obtained.

Plastit CL is suitable for use with ordinary Portland cement.

Durability:

Plastit CL has no detrimental effect on the protection given to embedded steel by the alkalinity of cement and is safe for use as an accelerator in situations where chloride containing admixtures cannot be used.

Dispensing:

The correct quantity of Plastit CL should be measured by means of a recommended dispenser. The admixture should then be added to the concrete with the mixing water to obtain the best results.

Curing:

As with all structural concrete, good curing practice should be maintained. Water spray, wet hessian or a Capcure O spray applied curing membrane should be used.

Limitations

Plastit CL is most effective at low temperatures and early ages. Where compressive strength gain is the major requirement, and stiffening rates are less important, a more cost effective performance may be obtained through the use of a CAPCO plasticiser or superplasticiser.

Normal precautions for application of concrete in cold weather should be followed where Plastit CL is used.

Packaging

Plastit CL is available in 20 kg containers and 240 kg drums.

Storage

Plastit CL has a minimum shelf life of 12 months provided the temperature is kept within the range of 5 °C to 35 °C.

Freezing point: Below -5 °C.

Precautions

Health and safety:

Plastit CL does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes.

Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

Fire:

Plastit CL is non-flammable.