

# Plastit® L1

## Water Reducing Admixture

### Uses

- To improve the effectiveness of the water content of a concrete mix.
- At higher dosages to provide a cost effective means of reducing concrete permeability and thereby reducing water penetration.

### Advantages

- Allows specified strength grades to be met at reduced cement content or increased workability.
- Water reduction significantly improves compressive strengths at all ages and enhances durability through the production of low permeability concrete.
- Minimizes the risk of segregation and bleeding and assists in the production of a dense, close textured surface, improving durability.
- Chloride free, safe for use in prestressed and reinforced concrete.

### Standards compliance

Plastit L1 conforms with BS 5075 Part 1 and with ASTM C494 as Type A.

### Description

Plastit L1 is a chloride free water reducing admixture based on selected sugar-reduced lignosulphonates. It is supplied as a brown solution which instantly disperses in water. Plastit L1 disperses the fine particles in the concrete mix, enabling the water content of the concrete to perform more effectively and improving the consistency of the concrete. This produces higher levels of workability for the same water content, allowing benefits such as water reduction and increased strengths to be taken.

### Typical dosage

The optimum dosage of Plastit L1 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. The normal dosage range is 0.3 to 0.8 kg/100 kg of cementitious material, including PFA, GGBFS and microsilica.

### Properties

Appearance	Brown Liquid
Specific gravity	1.17 gr/cm <sup>3</sup> at °20C
Chloride	Nil to BS5075
Air entrainment	Typically less than ½ additional air is entrained at normal dosages.
Alkali content	Typically less than 5.0 g. Na <sub>2</sub> O equivalent/litre of admixture. A fact sheet on this subject is available.

### Instructions for use

#### Compatibility:

Plastit L1 is compatible with other CAPCO admixtures in the same concrete mix. All admixtures should be added to the concrete separately and must not be premixed together prior to addition. The performance of concrete containing more than one admixture should be assessed by trial mixes.

Plastit L1 is suitable for use with all types of Portland cements, SRC cements and cement replacement materials such as PFA, GGBFS and microsilica.

The use of a combination of admixtures in the same concrete mix and or cement replacements may alter the setting time. Trials should always be conducted to determine such setting times.

#### Dispensing:

The correct quantity of Plastit L1 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.

### Packaging

Plastit L1 is available in 20 kg containers and 240 kg drums.

### Storage

Plastit L1 has a minimum shelf life of 12 months provided the temperature is kept within the range of °5C to °35C. Should the temperature of the product fall outside this range then contact CAPCO for advice.

**Freezing point:** Approximately °3-C

### Precautions

#### Health and safety:

Plastit L1 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 L1 is non-flammable.

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## Sample Test Results

Table 1:

Plastit L1 Kg per 100 kg cement	W/C ratio	Air content in fresh concrete (%)	Slump (cm)	Time (day)			
				1	3	7	28
				Compressive strength (MPa)			
0	0.47	1.7	6	3.5	16.7	23.3	33.6
0.5	0.47	1	16	3.7	19.6	30.2	39.3