

Plastit® SPL90

Retarding, High Range Water Reducing Admixture

Uses

- Increases workability without extra water, reducing placing time and costs.
- Gives increased working life to fresh concrete.
- Improves cohesion, minimizing segregation and improving surface finish.
- Aids pumping by improving cohesion and reducing workability loss.
- Allows a reduction in water:cement ratio, enhancing durability by producing low permeability concrete with reduced shrinkage cracking potential.
- Chloride free, safe for use in prestressed and reinforced concrete.
- Can be used with concrete containing microsilica and other cement replacements.

Advantages

- Good slump retention - Suitable for ready mix & hot weather concreting
- Makes possible major reductions in water:cement ratio which allow the production of high strength concrete without excessive cement contents.
- Improved cohesion and particle dispersion minimizes segregation and bleeding and improves pumpability.
- Chloride free, safe for use in prestressed and reinforced concrete.

Standards compliance

Plastit SPL90 conforms with BS 5075 Part 3 and ASTM C494 as Type G.

Description

Plastit SPL90 is a chloride free workability retention admixture based on selected specially selected and blended organic polymers. It is supplied as a brown solution which instantly disperses in water.

Plastit SPL90 disperses the fine particles in the concrete mix, enabling the water content of the concrete to perform more effectively. The increased workability, cohesion and retardation minimizes loss of workability.

Typical dosage

The optimum dosage Plastit SPL90 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 1.2 kg/100 kg of cementitious material, including PFA, GGBFS and microsilica.

Properties

Appearance	Brown Liquid
Specific gravity	1.16 gr/cm ³ at 20°C
Chloride	Nil to BS5075
Air entrainment	Typically less than 2% additional air is entrained at normal dosages.

Alkali content	Typically less than 5.0 g. Na ₂ O equivalent/litre of admixture. A fact sheet on this subject is available.
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Instructions for use

Compatibility:

Plastit SPL90 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 SPL90 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 SPL90 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 SPL90 is available in 20 kg containers and 240 kg drums.

Storage

Plastit SPL90 has a minimum shelf life of 12 months provided the temperature is kept within the range of 5°C to 35°C. 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 SPL90 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 SPL90 is non-flammable.

Plastit® SPL90

Sample Test Results

Table 1:

Plastit SPL90 Kg per 100kg cement	W/C ratio	Air content in fresh concrete (%)	Time (min)				
			0	15	30	45	60
			Slump (cm)				
0	0.48	2	7.5	-	-	-	-
0.5	0.48	1.5	22	21	20	18	17