Strusin® PLS22

High-Range Water Reducing Admixture, Based on Polycarboxylate - lignosulphonate

Note:
Struplast® PLS22-R: Set Retarding Type of Struplast PLS22
Struplast® PLS22-A: Set Accelerating Type of Struplast PLS22

Uses

- Specifically developed for use in high quality concrete for workability retention at low water content.
- Provides good pumpable concrete
- Recommended for piling and mass concrete pours with improved cohesion.

Advantages

- High range water reducing property allows the production of high quality concrete without excessive cement contents-ensures improved durability.
- Improved cohesion and particle dispersion minimizes segregation and bleeding and improves pumpability.
- Chloride free, safe for use in precast, prestressed and reinforced concrete.

Standards compliance

Strusin PLS22 conforms with BS 5075 Part 3 and with ASTM C494 as Type A and Type F, depending on dosage used.

Description

Strusin PLS22 is differentiated from conventional superplasticizers in that it is based on a unique carboxylic ether polymer with long lateral chains and lignosulphonates. This greatly improves cement dispersion. At the start of the mixing process electrocstatic dispersion occurs but the presence of the lateral chains, linked to the polymer backbone. Generate a steric hindrance which stabilizes the cement particle's capacity to separate and disperse. This mechanism considerably reduces the water demand in flowable concrete.

Strusin PLS22 is a particularly strong hyperplasticiser allowing production of consistent concrete properties around the required dosage.

Typical dosage

The optimum dosage of Struplast PLS22 to meet specific requirements should always be determined by trial mixes using the materials and conditions that will be experienced in use.
For normal concrete a dosage between 0.2% to 0.8% by weight of cement may be used.

Properties

Appearance	Brown Liquid
Specific gravity	1.20 ± 0.02 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_2o equivalent/litre of admixture. A fact sheet on this subject is available.

Instructions for use

Compatibility:

Struplast PLS22 is compatible with other STRUMIX 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.
Struplast PLS22 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 Struplast PLS22 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

Struplast PLS22 is available in 20 kg containers, 240 kg drums and 1100 kg IBC tank.

Storage

Struplast PLS22 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 STRUMIX for advice.
Freezing point: Approximately -2°C

Precautions

Health and safety:

Struplast PLS22 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:

Struplast PLS22 is non-flammable.