Strusin® N510

High-Range Water Reducing Admixture, Based on Polycarboxylate

Note:
Struplast® R510: Set Retarding Type of Struplast N510
Struplast® A510: Set Accelerating Type of Struplast N510

Uses

Strusin N510 is a high performance hyper plasticizer intended for applications where increased early and ultimate compressive strengths are required, and it has been developed for use in:
- Self compacting concrete
- Pumped concrete
- High performance concrete
- Per-cast concrete

Advantages

- Increased early and ultimate compressive strengths
- Increased flexural strength
- Improved adhesion to reinforcing and stressing steel
- Improved resistance to carbonation
- Lower permeability
- Increased resistance to aggressive atmospheric conditions
- Reduced shrinkage and creep
- Increased durability

Standards compliance

Strusin N510 conforms with BS 5075 Part 3 and with ASTM C494 as Type A and Type F, depending on dosage used.

Description

Strusin N510 is differentiated from conventional superplasticizers in that it is based on a unique carboxylic ether polymer with long lateral chains. 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 N510 is a particularly strong hyperplasticiser allowing production of consistent concrete properties around the required dosage.

Typical dosage

The optimum dosage of Struplast N510 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 0.3% to 1.2% by weight of cement may be used.

Properties

Appearance	Light Brown Liquid
Specific gravity	1.07 ± 0.02 gr/cm³ 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 N510 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 N510 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

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Strusin N510

determine such setting times.

Dispensing:

The correct quantity of Struplast N510 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 N510 is available in 20 kg containers, 200 kg drums and 1100 kg IBC tank.

Storage

Struplast N510 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 N510 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 N510 is non-flammable.