Struplast® Air

Concrete and Mortar Air Entraining Agent

Uses

To produce air entrained concrete for increased durability, resistant to damage by frost and de-icing salts, and to improve the cohesion and workability of concrete mixes where poorly graded aggregates must be used, and in any situation where bleeding, segregation or sand runs occur. Typical applications include:

- Concrete roadways
- Bridge decks
- Airport runways and taxiways
- Other extensive areas of concrete exposed to potential frost damage

Advantages

- Provides concrete with resistance to freezing and thawing.
- Improves cohesion, reduces segregation and bleeding.
- Gives dense, uniform, close textured surface to concrete.
- Excellent air bubble stability.
- Consistent performance, even with changes in aggregate quality and ambient temperature.
- Effective in low workability concrete.
- Suitable for use in Middle East conditions.

Standards compliance

Struplast Air complies with BS 5075: Part 2 and with ASTM C260 as an air entraining agent.

Description

Struplast Air is a chloride-free admixture based on synthetic surfactants and is supplied as a dark brown solution. Struplast Air acts on the interface of the cement/aggregate particles and mixing water to produce microscopic air bubbles evenly distributed throughout the concrete.

Typical dosage

The optimum dosage of Struplast Air to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. This allows the optimization of admixture dosage and mix design and provides a complete assessment of the mix. As a guide, an addition rate of 0.1% to 0.4% by weight of cement.

Properties

Appearance	Brown Liquid
Specific gravity	1.02±0.03 gr/cm^3 at 20°C
Chloride	Nil to BS5075
Air entrainment	Typically between 2% and 6% additional air is entrained at normal dosages.
Alkali content	Typically less than 5.0 g. Na2o equivalent/liter of admixture. A fact sheet on this subject is available.

Instructions for use

Compatibility:

Struplast Air is compatible with other STRUMIX admixtures used in the same concrete mix. All admixtures should be added to the mix separately and must not be mixed together prior to addition. The resultant properties of mixes containing more than one admixture should be assessed by the trial mix procedure recommended on this data sheet Struplast Air is suitable for use with all types of Portland cements and cement replacement materials such as PFA, GGBFS and microsilica.

Dispensing:

The correct quantity of Struplast Air 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 and sand : cement mixes, good curing practice should be maintained, particularly in situations where an overdose has occurred. Water spray, wet Hessian or a Strucure SW50 spray applied

curing membrane should be used.

Packaging

Struplast Air is available in 20 kg containers and 200 kg drums.

Storage

Struplast Air 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 Air 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 Air is non-flammable.