

A high performance concrete superplasticiser, based on polycarboxylic technology

Uses

Structuro 402 is a high performance superplasticiser 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
- Concrete requiring long workability retention
- High performance concrete

Advantages

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

Description

Structuro 402 is differentiated from conventional superplasticisers 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 an electrostatic dispersion occurs but the presence of the lateral chains, linked to the polymer backbone, generate a steric hindrance which stabilises the cement particle's capacity to separate and disperse. This mechanism considerably reduces the water demand in flowable concrete.

Structuro 402 combines the properties of water reduction and workability retention. It allows the production of high performance concrete and/or concrete with high workability.

Structuro 402 is a particularly strong superplasticiser allowing production of consistent concrete properties around the required dosage.

Technical support

Fosroc provides a technical advisory service for on-site assistance and advice on mix design, admixture selection, evaluation trials and dispensing equipment.

Properties

Specific gravity	:	1.045 - 1.065 g/cc *
Appearance	:	Light yellow coloured liquid
pH	:	6.5 *
Volumetric mass @ 20°C	:	1.05 kg/litre
Chloride content	:	Nil to IS:456 *
Alkali content	:	Typically less than 1.5 g Na ₂ O equivalent / litre of admixture.

* The uniformity parameters like specific gravity, pH, chloride content etc. will vary for specific customer requirements and mix design. Please refer our MTC issued for specific product configuration for measuring our product parameters that will be constantly and consistently administered

Dosage

The optimum dosage of Structuro 402 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 between 0.5 to 3.0 ltrs/100 kg of cementitious material.

Use at other dosages

Dosage outside the normal range quoted above can be used to meet particular mix requirements. Contact Fosroc for advice in these cases

Effects of overdosing

Overdosage may cause delay in the setting time.

Estimating

Packaging

Structuro 402 is available in 200 litre and 250kg

Structuro 402

Storage

Structuro 402 has a minimum shelf life of 24 months provided the temperature is kept within the range of 2°C to 50°C. Should the temperature of the product fall outside this range then contact local Fosroc office for advice.

Precautions

Health and safety instructions

Structuro 402 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.

For further information consult the Material Safety Data sheet available for this product.

Fire

Structuro 402 is water based and non-flammable.

Cleaning and disposal

Spillages of Structuro 402 should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water.

The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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