



Structuro® 405

A high performance concrete superplasticiser, based on polycarboxylic technology

Uses

Structuro 405 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 405 is differentiated from conventional superplasticisers in that it is based on a unique carboxylic ether polymer with long lateral chains. The product is capable of providing electrostatic and steric repulsive forces that improve dispersion of cement particles, leading to excellent flowability of concrete mixes. This mechanism considerably reduces the water demand in flowable concrete.

Structuro 405 combines the properties of water reduction and workability retention. It allows the production of high performance concrete and/or concrete with high workability.

Structuro 405 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	:	1.03 - 1.05
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Appearance	:	Light yellow coloured liquid
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pH	:	6.0
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Volumetric mass @ 20°C	:	1.092 kg/litre
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Dosage

The optimum dosage of Structuro 405 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 - 2 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 405 is available in 200 litre drums.

Storage

Structuro 405 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.

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Precautions

Health and safety instructions

Structuro 405 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 405 is water based and non- flammable.

Cleaning and disposal

Spillages of Structuro 405 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.



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