# **Structuro 203**



constructive solutions

## A high performance concrete super plasticiser,based on polycarboxylic technology

#### Uses

Structuro 203 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:

- Precast applications
- Concrete requiring long workability retention
- High performance concrete

#### **Advantages**

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

#### Description

Structuro 203 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 203 combines the properties of water reduction and workability retention. It allows the production of high performance concrete and/or concrete with high workability.

Structuro 203 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

Appearance	:	Light yellow coloured liquid
рН	:	6.5
Specific gravity	:	1.077
Volumetric mass @ 20°C	:	1.09 kg/litre
Chloride content	:	< 0.1%
Alkali content	:	Typically less than 1.5 g Na <sub>2</sub> O equivalent / litre of admixture.

#### Dosage

The optimum dosage of Structuro 203 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 liters/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 203 is available in 200 litre and 250kg

### Storage

Structuro 203 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 203 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 203 is water based and non- flammable.

#### **Cleaning and disposal**

Spillages of Structuro 203 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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## Important note :

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