

# Structuro 100



constructive solutions

# A high performance concrete superplasticiser, based on polycarboxylic technology

#### Uses

Structuro 100 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 100 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 100 combines the properties of water reduction and workability retention. It allows the production of high performance concrete and/or concrete with high workability.

Structuro 100 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	:	1.12 - 1.18 g/cc *
Appearance	:	Light yellow coloured liquid
pH	:	6.5 *
olumetric mass @ 20°C	:	1.06 kg/litre
Chloride content	:	Nil to IS:456 *
Alkali content	:	Typically less than 1.5 g Na <sub>2</sub> O equivalent / litre of admixture.

<sup>\*</sup> 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 100 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 100 is available in 200 litre and 200kg.

### **Storage**

Structuro 100 has a minimum shelf life of 24 months provided the temperature is kept within the range of  $2^{\circ}$ C to  $50^{\circ}$  C. Should the temperature of the product fall outside this range then contact local Fosroc office for advice.

### **Precautions**

# **Health and safety instructions**

Structuro 100 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.

# Structuro 100

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 100 is water based and non-flammable.

### **Cleaning and disposal**

Spillages of Structuro 100 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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