

# Structuro 285

## High early strength new generation superplasticiser

Structuro 285 is a new generation polycarboxylate (PC) polymer superplasticiser/high range water reducer. Structuro 285 combines the effects of both Steric and Electrostatic repulsion producing a product which outperforms conventional superplasticisers. The Structuro 285 molecule has been engineered specifically towards the Precast Industry to give excellent performance at low dosage either in the production of low water:cement ratio, high strength mixes or high performance flowing concretes.

### Uses

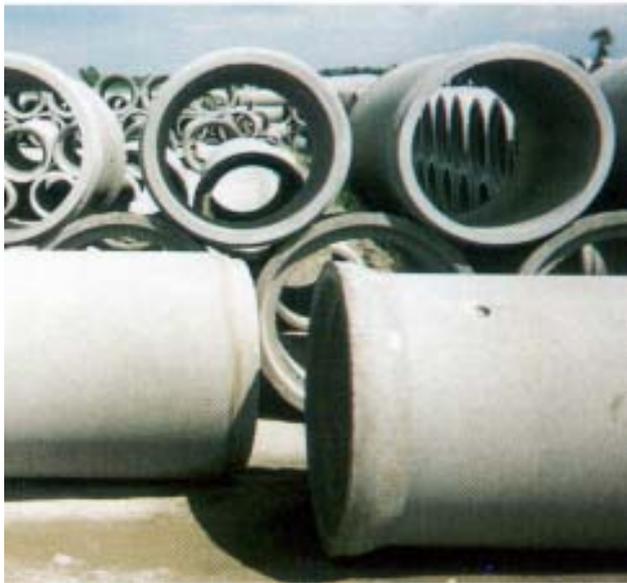
- Water reductions of up to 40% promote high performance concretes with high early and later age strength. Increased strengths facilitate earlier formwork striking and lifting of Precast elements.
- Superworkable flowing concretes can be produced at low water:cement ratios providing ease of mould filling and less workmanship where access or dense reinforcement is a problem.
- Structuro 285 can be used in the production of Self Compacting Concrete (SCC). Consult the Fosroc Technical Department for SCC guidelines.
- Low water:cement ratio increases long term durability, impermeability and resistance to sulphate attack.
- Excellent cost in use solution for Precast Industry concretes.

### Advantages

- In highly workable concretes, better consistence requires little or no vibration.
- More efficient mould usage.
- Improved rheology concrete provides a blemish free surface finish requiring less remedial work or 'dressing'
- Early age compressive strength development improves productivity, earlier transfer of pre-stress and negates the need for accelerating admixtures during cold temperature working.
- Chloride free, ideal for concrete containing embedded steel.

### Technical support

Fosroc provides a technical advisory service for on-site assistance and advice on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for admixtures and products for use with fresh and hardened concrete.



### Characteristics

Nature	Opaque liquid
Colour	Colourless / Opaque light yellow
Specific gravity	1.04 to 1.06kg/l at 20°C
pH at 10%	7 ±1
Chloride content	<0.1 %
Na <sub>2</sub> O equivalent	<3.0%
Freezing point	Sensitive to freezing

# Structuro 285

## Application

Structuro 285 is supplied ready to use for addition to concrete either whilst batching or to the truckmixer on site.

## Typical dosage

For each application the optimum dosage of Structuro 285 is best established by trial mixes with the site materials in use under conditions that will be experienced on site.

A starting dosage should be within the range 0.2 to 0.8 litres/100 kg of cement.

For further advice contact the Fosroc Technical Department.

## Dispensing

The correct quantity of Structuro 285 should be measured by means of a suitable dispenser at the time of batching the concrete. The admixture is best added with the latter part of the mixing water.

Structuro 285 may also be added to the concrete in the drum of a readymix truck. Full mixing of the admixture and the concrete should be ensured by mixing in the truck drum at high speed for a period of at least 2 minutes.

## Effects of overdosing

Overdosing, above the dosage range may promote segregation and excessive bleeding of the concrete mix. This is relevant when Structuro 285 is used to produce high slump concrete.

In low temperature working or if cements with low  $C_3A$  levels and/or cement replacements are used an overdose may result in an increase in setting time.

In the event of a suspected overdose please consult the Fosroc Technical Department.

## Compatibility

### With cements

Structuro 285 is suitable for use with all types of Portland cement and cement replacement materials e.g. GGBS, PFA and microsilica.

## With other admixtures

Structuro 285 is compatible with other admixtures in the Fosroc range. Admixtures should never be premixed prior to their addition to the concrete mix.

Contact the Fosroc Technical Department for further advice on the effects of various admixtures.

## Packaging

Structuro 285 is available in bulk supply or 20 litre drums.

## Storage

Structuro 285 has a minimum shelf life of 12 months provided the temperature is within 2°C to 50°C.

Should the product become frozen, the properties of Structuro 285 can be homogenised by thorough agitation of the completely thawed product.

## Precautions

### Health and safety

For further information refer to appropriate Product Safety Data Sheet.

### Fire

Structuro 285 is water based and non-flammable.



### Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of 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 of information given by it.

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