

# Fosroc® Auracast 200



constructive solutions

**Advanced high early age strength, low viscosity superplasticiser / high performance water reducer. Displays excellent dispersion and high range water reduction capabilities, developed specifically for the precast concrete industry.**

## Description

Fosroc Auracast 200 is a unique combination of the latest generation of polycarboxylate polymers which act synergistically to outperform conventional superplasticisers. Fosroc Auracast 200 has been specifically developed for the precast concrete industry coupling superior high range water reducing capabilities and excellent dispersion levels with robust performance. Fosroc Auracast 200 is ideal for use in precast concrete where the desire to maximise the performance of the concrete in the plastic and hardened state is preminent.

## Uses

- Ideal for producing “Fosroc’s Gold Standard” Self Compacting Concrete (SCC), super workable flowing concrete and high workability concrete.
- Water reductions of up to 45%, promote higher early age strength and superior ultimate strength.
- Extremely fluid, flowing concretes can be produced at very low water to cement ratios providing ease of mould filling and less workmanship where access or dense reinforcement can be a challenge.


## Advantages

- Competitive cost in use coupled with best in class performance
- Fosroc Auracast 200 used in the production of “Fosroc’s Gold Standard” Self Compacting Concrete (SCC), super workable flowing concrete and high workability concrete displays improved consistency which requires little or no vibration.
- Increased strength facilitates earlier striking of formwork, lifting of precast elements and further cement reductions. This enables the producer to increase efficiency and reduce overall energy input.
- Fosroc Auracast 200 produces concrete of an extremely high fluidity. This enables floating and finishing to be made easier and less labour intensive.
- High early age strength development improves productivity, earlier transfer of pre-stress and negates the requirement for accelerating admixtures during cold weather.
- Improved rheology of concrete provides a blemish free surface finish which requires less remedial work (dressing).
- Robust performance accommodating different cement source and types.
- Chloride free. Ideal for concrete containing embedded steel.

- Low water to cement ratios provide long term durability, low permeability and improves resistance to sulphate attack.

## Standards compliance

Fosroc Auracast 200 is CE marked. Fosroc Auracast 200 complies with EN 934 – 2 Tables 3.1 & 3.2 as a high range water reducing / superplasticising admixture.

	
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Auracast 200	
High Range water reducing/Superplasticizing Admixture EN 934-2:T3.1/3.2	
Water Reduction	≥ 12% compared with Reference mix
Increase of consistence	Increase ≥ 120mm from initial slump or Increase > 160mm from initial flow
Retention of Consistence	At 30 mins > Reference mix at initial
Compressive Strength	Fulfilled
Air Content:	Fulfilled
Corrosion Behaviour	Contains components only from EN934-1: Annex A.1.
Dangerous Substances	NPD
Durability	NPD

## Properties

Nature	Liquid
Colour	Dark Straw
Specific gravity	1.050 – 1.070
pH	4 +/- 1
Chloride content	<0.1%
Na <sub>2</sub> O equivalent	<0.5%
Freezing point	Sensitive to freezing
Air entrainment	Typically less than 2% additional air is entrained at normal dosage.

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## Typical performance achieved

Test performed upon EN 480 – 1 reference concrete. 350 kg OPC content per m<sup>3</sup>. All test methods used are applicable to EN 12350 (testing of fresh concrete) & EN 12390 (testing of hardened concrete).

### EN 934 – 2 table 3.1 – Equal consistency

Mix	Admixture Dosage (%)	Water Issued (litres)	Slump at T0 (mm)	Air Content (%)	Fresh wet density	1 Day strength (mpa)	28 Day strength (mpa)	Water reduction (%)
Control	-	170	65	1.3	2386	20.0	59	-
Fosroc Auracast 200	0.70	114	70	2.7	2437	45.5	89.5	33

### EN 934 – 2 table 3.2 – Equal water / cement ratios

Mix	Admixture Dosage (%)	Water Issued (litres)	Slump at T0 (mm)	Slump at T30 (mm)	Air Content (%)	Fresh West Density	28 Day Strength (mpa)
Control	-	156	25	15	2.4	2390	64
Fosroc Auracast 200	0.40	156	160	120	1.9	2396	69

## Application

Fosroc Auracast 200 is supplied ready for addition to concrete at the batching plant.

### Typical dosage

For each application the optimum dosage of Fosroc Auracast 200 is best established by trial mixes with the same site materials in use under conditions that will be experienced on site.

The typical dosage range for Fosroc Auracast 200 is 0.3 to 1.2 litres /100 kg of cementitious content.

For further advice please contact the Fosroc Technical Department.

## Dispensing

The correct quantity of Fosroc Auracast 200 should be measured by means of a suitable dispenser at the time of batching the concrete. Fosroc Auracast 200 is best added with the latter part of the mixing water.

### Effects of overdosing

Overdosing above the recommended dosage range may promote segregation and excessive bleeding of the concrete mix. This is relevant when Fosroc Auracast 200 is used to produce "Fosroc's Gold Standard" Self Compacting Concrete (SCC), super workable flowing concrete and high workability concrete. In the event of a suspected overdose please consult the Fosroc Technical Department.



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## Compatibility

### With cements

Fosroc Auracast 200 is suitable for use with all types of Portland cement and cement replacement materials e.g. GGBS, PFA and microsilica.

### With other admixtures

Fosroc Auracast 200 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

## Technical support

Fosroc provides a technical advisory service for on site evaluation 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.

## Packaging

Fosroc Auracast 200 is available in bulk supply or 20 litre drums.

## Storage

Fosroc Auracast 200 has a minimum shelf life of 12 months when the product is stored between 2°C and 50°C.

If Auracast 200 becomes frozen the material should be fully thawed and mixed until homogenous before use.

## Precaution

### Health and safety

For further information consult the product safety data sheet available at [www.fosroc.com](http://www.fosroc.com)

### Fire

Fosroc Auracast 200 is water based and non-flammable.

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### Important note

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