Fosroc Conplast SP430PC

constructive solutions

Superior high range water reducer specifically designed for precast and high early strength concrete

Uses

- Specifically formulated for use in the precast industry.
- Ideally suited for factory-line concrete production including applications using cement replacement materials and white cement.
- Can be used for effective dispersion in coloured concrete.
- Recommended for low slump concrete to produce more uniform, predictable and consistent concrete.
- Can be used in semi-dry conditions

Advantages

- High range water reducing property helps achieve high early-strengths and low water absorption values. High early strengths help in reducing production cycles.
- Reduced permeability levels even for low slump concrete, especially in the case of the precast elements, which reduces penetration of water and other deleterious impurities and increases the durability of concrete. Also reduces efflorescence.
- Improves cohesion and particle/pigment dispersion to produce dense concrete matrix.
- Chloride free, suitable for use in precast, prestressed and reinforced concrete.
- Compatible with all portland cements including cement replacement materials and white cement.
- Helps in superior concrete finishes which increase life of moulds.
- Can help in moderate slump retention.

Standards compliance

Conplast SP430PC conforms with BS 5075, BS:EN 934-2 and with ASTM C494 as Type A and Type F, depending on dosage used.

Description

Conplast SP430PC are chloride free, superplasticising admixture based on selected synthetic and organic polymers.

Conplast SP430PC disperses the fine particles in the concrete mix, enabling the water content of the concrete to perform more effectively. The very high levels of water reduction possible allow major increases in strength to be obtained.

Typical Properties

Appearance	:	Brown liquid
Specific gravity	:	1.22 at 25°C
Chloride content	:	Nil to BS 5075 / BS:EN934
Air entrainment	:	Less than 2% additional air is entrained at normal dosages.

Instructions for use

Mix design

Where the main requirement is to improve strengths, initial trials should be made with normal concrete mix designs. The addition of the admixture will allow the removal of water from the mix whilst maintaining workability. After initial trials, minor modifications to the overall mix design may be made to optimise performance.

Compatibility

Conplast SP430PC are compatible with other Fosroc admixtures used in the same concrete mix. All admixtures should be added to the concrete separately and must not be mixed together prior to addition. The resultant properties of concrete containing more than one admixture should be assessed by trial mixes.

Conplast SP430PC are suitable for use with all types of Portland cements and cement replacement materials such as PFA, GGBFS and microsilica.

The use of a combination of admixtures in the same concrete mix and or cement replacements may alter the setting time. Trials should always be conducted to determine such setting times.

Dispensing

The correct quantity of either Conplast SP430PC should be measured by means of a recommended dispenser. Normally, the admixture should then be added to the concrete with the mixing water to obtain the best results. These admixtures are not recommended to be added in dry aggregates or cement. It should always be added in wet mix conditions. Full blending of the admixture and the concrete should be ensured by mixing at high speed for a period of at least two minutes.

Contact Fosroc for advice regarding suitable equipment and its installation.

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Typical dosage

The optimum dosage of Conplast SP430PC to meet specific requirements should always be determined by trial mixes using the materials and conditions that will be experienced in use.

For high strength, water reduced concrete the normal dosage range is from 1.00 to 3.00 litres/100 kg of cementitious material, including PFA, GGBFS and microsilica. For high workability concrete the normal dosage range is from 0.70 to 2.00 litres/100 kg of cementitious material.

Use at other dosages

Dosages outside the typical ranges quoted above can be used to meet particular requirements, contact Fosroc for advice.

Effects of overdosing

An overdose of double the amount of Conplast SP430PC will result in a slight increase in retardation. Provided that adequate curing is maintained, the ultimate strength of the concrete will not be impaired by increased retardation and will generally be increased. The effects of overdosing will be further increased if sulphate resisting cement or cement replacement materials are used.

Overdosage may also cause increased air entrainment, which will tend to reduce strength. The degree of this effect will depend on the particular mix design and overdose level.

Cleaning and disposal

Spillages of Conplast SP430PC 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.

Estimating

Supply

Conplast SP430PC
210 litre drum, 1000 litre totes or bulk

For larger users, storage tanks can be supplied.

Storage

Conplast SP430PC should be re-circulated once a day for 10 minutes and has a minimum shelf life of 12 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 contact Fosroc for advice.

Freezing point: Approximately -2°C

Precautions

Health and safety

Conplast SP430PC do not fall into the hazard classifications of current regulations (see notes 1 and 2 below). 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

Conplast SP430PC is water based and non-flammable.

Note 1: CPL Regulations 1984 Supply- Schedule 1
Note 2: HSE publication Guidance Note EH40

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† **See separate data sheet**

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 Service. **All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.**

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ISO 9001 / ISO 14001 OHSAS 18001 BUREAU VERITAS Certification

UAE/0523/08/B