Fosroc Conplast SP333

constructive solutions

Multi-range water reducing admixture

Uses

- To reduce the water demand of a concrete mix without reducing workability, allowing increased early and ultimate strengths without additional cement.
- To significantly improve the workability of concrete without increasing water demand.
- Particularly suitable for increasing workability of ready-mixed concrete at elevated temperatures.
- To reduce concrete permeability and thereby reduce water penetration and enhance durability.

Advantages

- Wide dosage range to provide performance ranging from normal plasticiser to superplasticiser, providing flexibility in performance to meet a range of needs.
- Use in production of flowing concrete permits easier construction with quicker placing and compaction and reduced labour costs.
- Workability loss in high workability concrete is slower than normally found with superplasticisers.
- Reduction in water:cement ratio enhances durability, producing low permeability concrete with reduced shrinkage cracking potential.
- Suitable for use with all normal cement replacement materials, including PFA, GGBFS and microsilica.

Standards compliance

Conplast SP333 conforms with BS 5075 , BS:EN934-2, ASTM C494 as Type A and Type G and ASTM C1017 as Type 1 and Type 2.

Description

Conplast SP333 is a multi-range water reducing admixture based on specially selected and blended organic polymers. It is supplied as a brown solution which instantly disperses in water.

Conplast SP333 disperses the fine particles in the concrete mix, enabling the water content of the concrete to perform more effectively. The improved dispersion of cement particles enhances the efficiency of hydration. At higher dosage levels retardation of setting will be obtained.

Conplast SP333TG1 a modified version of Conplast SP333, is suitable for use when higher temperatures are experienced during the hot summer period.

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 other products for use with fresh and hardened concrete.

Typical Dosage

The optimum dosage of Conplast SP333 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use.

Where increased strengths through water reduction are required the normal dosage range is from 0.25 to 1.50 litres/100 kg of cementitious material, including PFA, GGBFS and microsilica. For high workability concrete the normal dosage range is from 0.25 to 1.00 litres/100 kg of cementitious material.

Dosages at the higher end of the ranges recommended will give significant retardation and may only be suitable for use in warmer climates.

Use at other dosages

Dosages outside the typical ranges quoted above may be used to meet particular mix requirements. Contact Fosroc for advice in these cases.

Effects of overdosing

An overdose of Conplast SP333 will result in a significant increase in retardation as compared to that normally obtained at the intended dosage. This effect is found with most water reducing admixtures, although the degree may vary. 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.

Typical Properties

Appearance	: Brown liquid
Specific gravity	: 1.18 at 25°C
Chloride content	: Nil to BS 5075 & BS:EN934-2
Air entrainment	: Less than 2% additional air is entrained at normal dosages.

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Instructions for use

Mix design

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

Where the primary intention is to provide high workability concrete, the mix design should be suitable for use as a pump mix. Advice on mix design for flowing concrete is available from Fosroc.

Compatibility

Conplast SP333 is compatible with other Fosroc admixtures 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 the trial mixes.

Conplast SP333 is suitable for use with all types of Portland cements and cement replacement materials such as PFA, GGBFS, SRC and silica fume.

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 Conplast SP333 should be measured by means of a recommended dispenser. The admixture should then be added to the concrete with the mixing water to obtain the best results. Contact Fosroc for advice regarding suitable equipment and its installation.

Estimating

Supply

Conplast SP333
210 litre drum, 1000 litre totes or bulk

For larger users, storage tanks can be supplied.

Storage

Conplast SP333 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 then contact your local Fosroc office for advice.

Freezing point: Approximately -6°C

Precautions

Health and safety

Conplast SP333 does 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 SP333 is water based and non-flammable.

Cleaning and disposal

Spillages of Conplast SP333 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.

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.**

Al Gurg Fosroc LLC

Post Box 657, Dubai
United Arab Emirates

www.fosroc.com

Head Office
telephone: (+9714) 2039699 **fax:** (+9714) 2859649 **email:** agf@fosroc.com

Regional offices

Abu Dhabi, Al Gurg Fosroc	**telephone:** 673 1779	**fax:** 673 1449	**email:** abudhabi@fosroc.com
Bahrain, YBA Kanoo	**telephone:** 17738200	**fax:** 17732828	**email:** bahrain@fosroc.com
Kuwait, Boodai	**telephone:** 4817618	**fax:** 4832124	**email:** kuwait@fosroc.com
Oman, Al Amana	**telephone:** 24815080	**fax:** 24817554	**email:** oman@fosroc.com
Qatar, Tadmur	**telephone:** 4665501	**fax:** 4664147	**email:** qatar@fosroc.com

ISO 9001 / ISO 14001 OHSAS 18001 BUREAU VERITAS Certification

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