Fosroc Conplast SP495

constructive solutions

Superior high range water reducer for high quality rheoplastic concrete and hydration control

Uses

- Specifically developed for use in high quality concrete for workability retention at low water content.
- Specially formulated for concrete with supplementary cementitious materials like GGBS, Microsilica, Fly ash.
- Provides good pumpable concrete
- Recommended for piling and mass concrete pours with improved cohesion and temperature control.

Advantages

- High range water reducing property allows the production of high quality concrete without excessive cement contents - ensures improved durability.
- Acts as a highly effective hydration control admixture especially in blended concrete.
- Higher workability levels are maintained for longer than with sulphonated melamine and napthalene admixtures.
- Better rheological properties for concrete made with double or triple blends without abnormal retardation.
- Improved cohesion and particle dispersion minimises segregation and bleeding and improves pumpability.
- Chloride free, safe for use in precast, prestressed and reinforced concrete.

Standards compliance

Conplast SP495 conforms with BS 5075, BS:EN 934-2 and with ASTM C494 as Type F & G depending on dosage used and ASTM C1017 as Type 1 & Type 2 depending on dosage used.

Description

Conplast SP495 is a chloride free, superplasticising admixture based on selected polymer modified napthalene sulphonate dispersives.

Conplast SP495 disperses by electro kinetic action in the concrete mix, enabling the water phase of the concrete to perform more effectively.

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 Properties

Appearance	:	Brown liquid
Specific gravity	:	1.20 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 SP495 is 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 SP495 is 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 Conplast SP495 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. Conplast SP495 is 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 SP495 to meet specific requirements should always be determined by trial mixes using the materials and conditions that will be experienced in use.

For normal concrete a dosage between 0.75% to 1.5% by weight of cement may be used, and for high strength concrete, dosage between 1.5% to 3.0% by weight of cement may be used.

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 SP495 will result in an 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 SP495 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 SP495
210 litre drum, 1000 litre totes or bulk

For larger users, storage tanks can be supplied.

Storage

Conplast SP495 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 SP495 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 SP495 is water based and non-flammable.

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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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