

# Conplast® SP430CC



constructive solutions

## Superplasticising slump retaining admixture

### Uses

Conplast SP430CC is used where a high degree of workability and its retention are required, where delays in transportation or placing are likely or when high ambient temperatures cause rapid slump loss. It facilitates production of high quality concrete.

### Advantages

- **Ready Mixed Concrete** - Increased workability and workability retention minimise the risks of long distance deliveries
- **Increased strength** - Provides high early strength for precast concrete if water reduction is taken advantage of.
- **Improved quality** - Denser, close textured concrete with reduced porosity and hence more durable.
- **Higher cohesion** - Risk of segregation and bleeding minimised; thus aids pumping of concrete
- **Chloride free** - Safe in prestressed concrete and with sulphate resisting cements and marine aggregates.

### Standards

Conplast SP430CC complies with IS:9103:1999 and BS:5075 Part 3 and ASTM-C-494 Type 'F' as a high range water reducing admixture and Type G at high dosage.

### Description

Conplast SP430CC is supplied as a brown liquid instantly dispersible in water.

Conplast SP430CC has been specially formulated to give high water reductions upto 25% without loss of workability or to produce high quality concrete of reduced permeability.

### Properties

|                         |  |
|-------------------------|--|
| <b>Specific gravity</b> | 1.20 to 1.21 at 30°C                     |
| <b>Chloride content</b> | Nil. to IS:9103-1999 and BS:5075         |
| <b>Air entrainment</b>  | Approx. 1.5% additional air over control |

**Compatibility** : Can be used with all types of cements except high alumina cement. Conplast SP430CC is compatible with other types of Fosroc admixtures when added separately to the mix. Site trials should be carried out to optimise dosages. Conplast SP430CC is suitable for use with all types of OPC and cement replacement materials such as PFA, GGBFS and microsilica.

**Workability** : Can be used to produce flowing concrete that requires no compaction. Some minor adjustments may be required to produce high workable mix without segregation.

**Cohesion** : Cohesion is improved due to dispersion of cement particles thus minimising segregation and improving surface finish.

**Compressive strength** : Conplast SP430CC is primarily highly efficient superplasticiser giving large increase in workability without significant change in compressive strength.

Conplast SP430CC may be used to produce substantial water reduction resulting in a considerable increase in compressive strength.

**Durability** : Reduction in W/C ratio enables increase in density and impermeability thus enhancing durability of concrete.

### Application instructions

#### Dosage

The optimum dosage is best determined by site trials with the concrete mix which enables the effects of workability, strength gain or cement reduction to be measured. Site trials with Conplast SP430CC should always be compared with mix containing no admixture. As a guide, the rate of addition is generally in the range of 0.6 - 1.5 litres /100 kg cement. For any deviations in dosage in special applications, please contact Fosroc Technical Services.

#### Over dosing

An over dose of double the recommended amount of Conplast SP430CC, will result in very high workability and some retardation of setting time will occur. However, the ultimate compressive strength will not be impaired.

#### Dispensing

The measured quantity of Conplast SP430CC should be added along with the gauging water. For best results, add Conplast SP430CC in the last phase after prewetting the mix with 80% of the total water required.

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## Mix design

Fosroc has an advisory service on Concrete Mix Design and can be contacted if assistance is required.

## Estimating

## Packaging

Conplast SP430CC is supplied in 5, 20 and 200 litre drums.

## Storage

Conplast SP430CC has a minimum shelf life of 12 months when stored under normal temperatures. It should be protected from extreme temperatures and preferably stored in shade.

## Precautions

### Health & Safety

Conplast SP430CC is non-toxic. Any splashes on the skin should be washed immediately with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought.

### Fire

Conplast SP430CC is non flammable.

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### Important note :

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## Fosroc Chemicals (India) Pvt. Ltd.

### Head Office

111/3, Hafeeza Chamber II Floor,  
K H Road, P.No. 2744, Bangalore 560027

[www.fosroc.com](http://www.fosroc.com)

### telephone

+91 80-22240018/120

### fax

+91 80-22233474

### e-mail

[india@fosroc.com](mailto:india@fosroc.com)

### Regional Offices

#### Bangalore

Shankar House, IV Floor  
1 & 18, RMV Extension  
Bangalore 560 080  
Ph:080-2361 3161/2361 2004  
Fax : 080-2361 7454  
email: [Bangalore@fosroc.com](mailto:Bangalore@fosroc.com)

#### Mumbai

208/209, Persepolis  
Sector 17, Vashi  
Navi Mumbai 400 703  
Ph:022-2789 6412/14  
Fax: 022 - 2789 6413  
email:[Mumbai@fosroc.com](mailto:Mumbai@fosroc.com)

#### Delhi

First floor, 1/2 East Patel Nagar  
Opp: Vivek Cinema, Main Patel Rd  
New Delhi 110 008  
Ph:011-25884903/4  
Fax: 011- 25884422  
email:[Delhi@fosroc.com](mailto:Delhi@fosroc.com)

#### Kolkata

P-569, Lake Terrace Extn.  
First Floor  
Kolkata 700 029  
Ph: 033 24650917 / 55343188  
Fax: 033-24650891  
email:[Kolkata@fosroc.com](mailto:Kolkata@fosroc.com)

- Ahmedabad : (079) 26762799 ● Ankleshwar : (02646) 220704/224687 ● Bhubaneshwar : (0674) 2546415 ● Chennai (044) 24899949/24853383
- Chandigarh : (0172) 2639360 ● Cochin : (0484) 2356668 ● Coimbatore : (0422) 2472966 ● Goa : (0832) 2542465 ● Guwahati (0361) 2548793
- Hyderabad : (040) 27662324/27662425 ● Hubli (0836) 09343402597 ● Indore : (0731) 504339/5061477 ● Jaipur : (0141) 2235349
- Jamshedpur: (0657) 2223848 ● Lucknow : (0522) 2239044 ● Nagercoil 09842134873 ● Visakhapatnam : (0891) 2564850 / 2707607