

## Superplasticising slump retaining admixture

### Uses

Conplast SPRMC444M2 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 SPRMC444M2 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 SPRMC444M2 is supplied as a brown liquid instantly dispersible in water.

Conplast SPRMC444M2 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

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

**Compatibility :** Can be used with all types of cements except high alumina cement. Conplast SPRMC444M2 is compatible with other types of Fosroc admixtures when added separately to the mix. Site trials should be carried out to optimise dosages. Conplast SPRMC444M2 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 SPRMC444M2 is primarily highly efficient superplasticiser giving large increase in workability without significant change in compressive strength. Conplast SPRMC444M2 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 SPRMC444M2 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 SPRMC444M2, 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 SPRMC444M2 should be added along with the gauging water. For best results, add Conplast SPRMC444M2 in the last phase after prewetting the mix with 80% of the total water required.

# Conplast SPRMC444M2

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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 SPRMC444M2 is supplied in 5, 20 and 200 litre drums.

## Storage

Conplast SPRMC444M2 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 SPRMC444M2 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 SPRMC444M2 is non flammable.

## Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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