



constructive solutions

### Densified Silica Fume

#### Uses

It will react with the free lime in concrete to form calcium silicate hydrates (CSH) giving an increase in binding agent, thus improving concrete strength and reducing the permeability.

## Advantages

- Improving workability: easier, quicker placing and compaction
- Higher cohesion : risk of segregation and bleeding minimized
- Increase strength: very high and ultimate strength, both compression and flexural strength
- Improve quality: denser, water and gas permeability of set concrete reduced, chlorides infiltration reduced, improve overall durability

## Description

Conplast SF1000 is a densified silica fume admixture formulated to produce high quality concrete.

## **Technical Support**

Fosroc provides a technical advisory service for on-site assistance and advise on admixture selection, evaluation trials. Technical data and guidance can be provided for admixtures and other products for use with fresh and hardened concrete.

#### Properties

Calcium Chloride content: nil

Natural density 2200 kg/m3

Compressive strength/density: It consists of extremelly small particles.

The particles are typically 100 times finer than cement, when added to concrete physically fills the voids. And the reaction with freelime to form calcium silicate hydrates (CSH), will improve the compressive strength of the concrete and reduce the concrete permeability.

Cohesion/segregation: Improves the cohesion and reduces possibilities of segregation.

Corrosion Protection: A protection layer from alkaline environment of concrete is formed on the steel bars. The low permeability concrete which is produced with Conplast SF 1000 prevent the ingress of chloride ions to reinforcing steels.

Durability: Increase in density and uniformity also the low permeability will increase the durability and resistance of concrete to attack by aggressive environments.

#### Dosage

The optimum dosage is best determined by site trials with the particular concrete mix, which enables the effects of workability, strength gain to be measured.

As a guide the rate of addition, as follows:

Area of use	Conplast SF1000
	% by weight to cement content
Normal Concrete	4-7
High strength concrete	7-15
Underwater concrete	12 -15
Pumping aid	2 - 3

# Conplast SF1000

## Packaging

Conplast SF1000 is supplied in 25 kg moisture resistant bags.

## Storage

Conplast SF1000 has a shelf life of 12 months if kept in a dry store in sealed bags. If stores in high temperatures and high humidity locations the shelf life may be reduced.

#### **Precautions**

### Health and Safety

Contact with the skin and eyes, or inhalation of dust should be avoided. Wear suitable protective clothing, gloves, eye/ face protection and dust mask. After contact with skin, wash off with clean water. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.



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## Important note

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