

## **TECHNICAL DATA GUIDE- CONCRETE ADMIXTURE**

# **CSTOP 104**

### Retarder for mortar and concrete

#### **DESCRIPTION**

CSTOP 104 is retarding admixture which temporarily delays the hydration process in mortar and concrete. It is normally used in conjunction with other admixtures and can be used in all types of concrete including sprayed concrete. The degree of retardation is proportional to the dosage used.

CSTOP 104 confirms to performance requirements of BIS 9103, Type 'B' of ASTM C 494, and EN934 part2.

#### **TYPICAL APPLICATIONS**

- Extended workability retention.
- Slipform concrete
- Plaster mortar and renders
- Cements with high C3A content
- Hot weather concreting
- Structures without cold joints.

#### **FEATURES AND BENEFITS**

- Allows reduction in free water
- Reduced construction joints
- Reduces dosages of expensive plasticizers
- Controlled extension of set time
- Concrete with long hauls
- Gradual and predictable drop in slump

#### **PERFORMANCE TEST DATA**

Appearance	Colorless Liquid
Relative density	1.03 ± 0.2 @25°C
рН	≥6
Chloride ion	≤ 0.2%
content	

#### **DOSAGE AND DIRECTIONS FOR USE**

Normal dosage rates of CSTOP 104 varies between 0.05% - 0.8 % by weight of cementitious material. Optimum dosage of CSTOP 104 should be determined by trials.

Exact dosage rate depends on

- The quality & quantity of aggregates.
- W/C ratio
- Ambient temperature
- Conveying, placement & consolidation techniques.

Noticeable delayed retardation occurs when used in high dosage, when sulphate resisting cements/ supplementary cementitious materials are used and when ambient temperatures are low.

## **RE-DOSING & EFFECTS OF OVERDOSING**

Depending on the slump requirement an additional dose of say up to 0.2 % W/C can be used where improved workability, enhanced set retardation are required.

Severe overdosing of CSTOP 104 (Say 0.20% to 0.40%) can lead to;

- High workability mixes with segregation & bleeding,
- Prolonged duration of initial and final set times,
- Increased air entrainment and plastic shrinkage cracks.

Please consult Technical Department of CBS Chemicals for recommendation before placing concrete overdosed with admixtures

#### **DISPENSING**

The correct quantity of CSTOP 104 should be measured by means of a recommended dispenser. CSTOP 104 is supplied in liquid form. It should be added in supplied form mixed with batching water

**COMPATIBILITY** 

CSTOP 104 is compatible to be used in combination with SNF & PCE admixtures, air entrainers, accelerators, curing compounds, retarders, corrosion inhibitors and shrinkage reducing admixtures, however it should be dispensed separately.

**PACKAGING** 

CSTOP 104 is supplied in 20 & 210 Litre HDPE drums.

#### **STORAGE & SHELF LIFE**

CSTOP 104 should be stored in a shaded cool and dry place. Shelf life of CSTOP 104 is 12 months from the date of manufacturing if kept in unopened, undamaged, original sealed packaging and kept within the range of 10°C to 50°C. If the product is frozen, thaw at +5°C or above and remix with mild agitation.

Failure to comply with recommended storage may deteriorate the product or packing.

#### **HEALTH & SAFETY**

CSTOP 104 is water based, non-flammable and non-hazardous. 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 refer to the material safety data sheet

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