

# **TECHNICAL DATA GUIDE- CONCRETE ADMIXTURE**

# **CFOAM 2000**

## **Foaming agent for Light Weight Concrete**

## **DESCRIPTION**

CFOAM 2000 is based on synthetic molecules and used as an additive in the production of light weight concrete CFOAM 2000 when added lowers surface tension of water, induces up to 45 % of air entrainment and retains air in concrete/mortar.

It is diluted with water and passed into the foam generator with a water pressure of 4–6Bar connected to an air compressor.

The produced foam is introduced in the prepared concrete mix and thoroughly mixed till a uniform mix is obtained. Ultra-stable bubbles of 0.5 to 2 mm diameter are formed when mixed. The foam provides an ultra-stable air void system with air bubbles ranging from 0.50 -2 mm in diameter and controls specific surface area of air voids.

## **TYPICAL APPLICATIONS**

- For levelling screeds, Floor screeds, ducts etc.
- Backfills such as Sewer trenches, Conduit trenches
- For structures needing thermal insulation, improving fire ratings
- Reduction in water content

## **FEATURES AND BENEFITS**

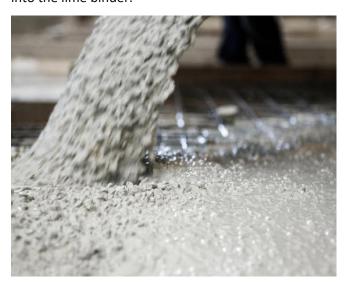
- Excellent stability in varying quality of water
- controlled bleed and maintaining good cohesion of concrete rheology with air entrainment.

## **PERFORMANCE TEST DATA**

Appearance		Brown free flowing liquid
Relative density		1.07 ± 0.02 @25°C
Chloride	ion	<0.2%
content		
рН	•	≥6

## **MECHANISM OF ACTION**

CFOAM 2000 works as a dispersant by preventing the flocculation of fine particles of cement and EPS Beads These dispersants are basically surface-active chemicals consisting of molecules, hydrophobization of the surface of the pores (after the relaxation of the protein chains) and the formation of complexes with the calcium ion, it may increase the conglobation of lime particles, resulting in strength improvement, possibly leading to more rapid agglomeration of portlandite crystals of cement also, it will introduce many tiny air bubbles at 0.5-2 lm, as the CFOAM 2000 contains blood proteins as a surfactant that entraps air into the lime binder.



## **DOSAGE AND DIRECTIONS FOR USE**

Optimum dosage of CFOAM 2000 should be determined by trials. Normal dosages range between 0.4% - 0.8 % by weight of total cementitous material and beads suspension.



The correct quantity of CFOAM 2000 should be measured by means of a recommended dispenser and should

- Preferably be added after adding fine aggregate mixing.
- Quality & quantity of binders & W/C ratio
- Gradation of fine aggregates
- Ambient temperature
- Performance requirements.

#### **RE-DOSING OF ADMIXTURE**

Depending requirement an additional dose of 0.1 % to 0.4% by W/C may be added to regain workability loss and compensate for water loss in mixes. This may not adversely affect the ultimate strength of concrete and may also achieve higher strengths than normal concrete. The mix shall be thoroughly mixed/ agitated at a speed of 12 rpm for at least 5 minutes before unloading.

## **EFFECTS OF OVERDOSING**

A Severe overdose of CFOAM 2000 can result:

- Set delay
- Bleed / Segregation of mix
- Higher plastic shrinkage cracks

However, a slight overdose may not affect ultimate strength of concrete and can achieve higher strength than normal concrete. Please consult Technical Department of CBS Chemicals for recommendation before placing concrete overdosed with admixtures.

## **COMPATIBILITY**

CFOAM 2000 contains hydrocarbon CK12, alkyl-benzyl sulphonate, triterpenoid saponin.

## **PACKAGING**

CFOAM 2000 is supplied in 20/50/210 Litre HDPE drums; alternatively 1000 Litre IBC's and bulk deliveries can be arranged.

## **STORAGE & SHELF LIFE**

CFOAM 2000 should be stored in a shaded cool and dry place. Shelf life of CFOAM 2000 is 12months from the date of manufactured 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**

CFOAM 2000 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.

## **DISCLAIMER**

The information given is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification. Since the conditions of use are beyond our control we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale including those limiting warranties and remedies which apply to all goods supplied by us. No statement, recommendation or suggestion is intended for any use which would violate or infringe statutory obligations or any rights belonging to a third party.

#### **CBS CHEMICALS PRIVATE LIMITED**

Regd: No.118, Varasiddi Building, Ground Floor, 2<sup>nd</sup> main, Kasturi Nagar, Bengaluru - 560 043

Plant: DP. No. 109, 3<sup>rd</sup> Main Road, SIDCO Industrial Estate, Thirumazhisai, Chennai - 600 124

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Email: techsupport@cbschemicals.com