

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 content	<0.2%
pH	≥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 con- globation 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 cementitious 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

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