

UNIFOAM

FOAMING AGENT FOR LIGHTWEIGHT CONCRETE

UCA-LA-06-0722

DESCRIPTION

UNIFOAM is an effective foaming agent to produce light weight concrete used as insulation system in construction industry

It is a blend of selected surfactant and other specialty additives to generate a stable cellular foam matrix. The generated foam is stable under the alkaline conditions of cement slurry. The cellular structure significantly reduces the thermal conductivity and density of the concrete.

USES

- ❖ Foam concrete made using UNIFOAM can be used for the following :
 - ✓ Thermal insulation on roof slabs.
 - ✓ Backfilling
 - ✓ Acoustic insulation for walls and ceilings.
 - ✓ Fire Barriers
 - ✓ To fabricate light weight beams, blocks and panels

ADVANTAGES

- Generates ultra-stable air bubbles that are strong, small and evenly distributed in the concrete.
- Suitable to use with all types of light weight aggregates to produce very low density concrete mix.
- Stable foam under alkaline condition of cement slurry
- Increase in resistance of concrete against frost and de-icing salts.
- High efficiency even at low dosage.

TYPICAL PROPERTIES

APPEARANCE	Colourless to Light yellow Liquid
SPECIFIC GRAVITY	1.00 – 1.04 g/cc @ 25 °C.
CHLORIDE CONTENT	NIL according to BS 5075
CEMENT COMPATIBILITY	Compatible with all types of cement
PACKAGING	5, 20, 200 ltr & 1000 ltr IBC

STANDARDS

UNIFOAM meets the performance standards of **ASTM C 796**

INSTRUCTIONS FOR USE

DOSAGE

The optimum dosage for UNIFOAM should be determined by site trials with the particular mix design and the job under consideration.

As a guide the dosage is normally 0.3 to 0.6 % by weight of cement. The dosage of UNIFOAM required will vary due to a number of factors including the final mortar density, mixing method and starting materials.

PRE-FOAMING METHOD

The recommended dosages of UNIFOAM should be diluted with water to prepare a solution. The diluted solution is used to produce a pre-foam by passing it through a foam generating machine which produces uniform and stable foam, having a volume of 40 to 50 times that of the original solution. Thereafter, the foam is passed to cement or sand – cement slurry chamber and mixed to uniformity

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OVERDOSING

UNIFOAM is an air entraining agent. The compressive strength of any mix will get reduced with increase in UNIFOAM added since the level of entrained air will be increased. Overdosing of UNIFOAM will normally produce an increase in air content & workability together with loss in compressive strength.

NOTE

The final desired properties of the light weight mixture using UNIFOAM are affected by temperature changes, mixing equipment, mixing and foam injection time.

High ambient temperature in excess of 32 °C may cause workability / air loss affecting final density. Overmixing also tends to reduce air or foams

CLEANING

Spillages of UNIFOAM can be removed with water.

STORAGE & SHELF LIFE

UNIFOAM has a shelf life of 12 months if kept in a dry store in the original, unopened drums.

Store in cool, dry conditions, away from sources of heat and naked flames, in the original, unopened packs

SAFETY PRECAUTIONS

UNIFOAM is nontoxic.

Any Splashes to the skin should be washed immediately with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought.

LIMITATION OF LIABILITY

This information is based on our current level of knowledge. It is given in a good faith but it is not intended to guarantee any particular properties. The users must satisfy themselves that there are no circumstances requiring additional information or precautions or the verification of details given herein.

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