

# EABASSOC Foaming Agent for lightweight foamed concrete production ASTM C869

## PRODUCT DESCRIPTION

EABASSOC Foaming Agent is a highly concentrated, highly efficient, **LOW DOSAGE** liquid. When processed through a foam generator a solution of EABASSOC Foaming Agent in water creates a stiff, white foam with a 20 to 25 times increase in volume and NO foam collapse. The foam can easily be incorporated into any mortar mix to make EABASSOC Lightweight Foamed Concrete, even when using cold water.

EABASSOC Foaming Agent may be used with all types of Portland cement and incorporated into cement-only or sand-cement mortar slurries to produce foamed concrete of every type and for every application. The cost of EABASSOC Foaming Agent as a proportion of the total cost of foamed concrete is tiny - typically only about 1 – 3 %.

## SPECIAL FEATURES

- **Low cost / high concentration.** EABASSOC Foaming Agent has a LOW USAGE rate and it is this which must be considered when choosing a foaming agent, not just its basic price per litre.
- **Excellent stability** over a wide range of temperature and water quality. This stability means that the foam bubbles sustain themselves and support the concrete around them. The bubbles DO NOT burst easily and hence the foamed concrete does not collapse when it is made or after it has been placed.
- **High efficiency** means that a high level of air entrapment is possible, hence low density foamed concrete can be achieved without using excessive foaming agent.
- Lightweight foamed concrete made using EABASSOC Foaming Agent has **excellent strength and thermal insulation properties.**

## AREAS OF USE

EABASSOC Lightweight Foamed Concrete is an extremely versatile material and can be used for a wide range of applications. Please refer to EAB Associates leaflet 'EABASSOC Lightweight Foamed Concrete'.

## TECHNICAL DATA

Appearance	translucent, pale brown liquid
Sp. Gravity	1.02
Water solubility	infinite
Dosage rate	0.3 - 0.6 litres per m <sup>3</sup> of foamed concrete produced
pH	6.7 in solution
Freezing point	-3 to -5 °C. Recovers fully after freezing
Chloride Content	less than 0.0001 parts
Packaging	25 kg drums, 200 kg drums and 1000 kg IBCs
Shelf life	several years

## TEST RESULTS

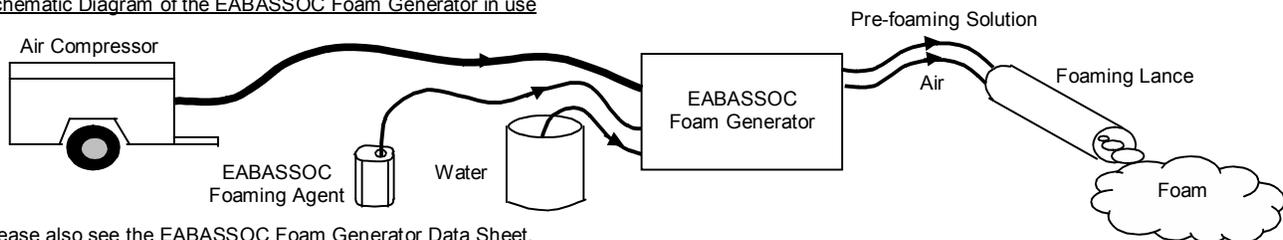
EABASSOC Lightweight Foamed Concrete is typically made with dry densities from 400 – 1600 kg/m<sup>3</sup> and compressive strengths from 1 – 12 N/mm<sup>2</sup>. This is achieved by varying the mix design of sand:cement:water and the foam addition. Please contact EAB Associates for further details.

**Foamed concrete made using EABASSOC Foaming Agent is lightweight and free-flowing. It can be placed easily, by pumping if necessary, and does not require compaction, vibration or levelling. It has superior strength, excellent resistance to water and frost, and provides a high level of sound and thermal insulation. Its heat conductivity is only about 5 – 20 % that of dense concrete.**

## EABASSOC FOAM GENERATOR

Water and EABASSOC Foaming Agent are fed separately into the EABASSOC Foam Generator which mixes them in the correct ratio (see diagram below). The mixture of water and foaming agent is called the pre-foaming solution. Pre-foaming solution and compressed air are fed through a lance which creates a stiff white foam with a volume 20 – 25 times that of the pre-foaming solution. The foam is then mixed into the mortar slurry in a suitable cement mixer, to make EABASSOC Lightweight Foamed Concrete. A built-in automatic timer enables easy production of identical consecutive batches. The EABASSOC Foam Generator is totally safe, having no electrical parts, and is entirely air operated.

### Schematic Diagram of the EABASSOC Foam Generator in use



Please also see the EABASSOC Foam Generator Data Sheet.

## IMPORTANT

Performance is dependent on local conditions and on the quality of the other materials in the mix, especially on the type and quality of the sand. Pre-contract trials should be conducted to determine the exact mix design and foaming agent usage.

## HEALTH & SAFETY

EABASSOC Foaming Agent is essentially harmless and easily washes off.

## CUSTOMER SERVICE

EAB Associates are pleased to offer detailed advice to EABASSOC Foaming Agent users, including suggestions for mix designs for various applications and teaching customers how to calculate foam quantities for the mix designs. We will give practical advice about making and placing foamed concrete. We are also available for conducting trials, site work supervision and full scale contracting work.

## High efficiency / Low dosage

**Dosage Rate : 0.3 – 0.6 ltrs/m<sup>3</sup>**

**The vast majority of mix designs used for making the various grades of EABASSOC Lightweight Foamed Concrete typically require 0.3 – 0.6 ltrs of EABASSOC Foaming Agent per 1m<sup>3</sup> of foamed concrete produced.**