

**EUCO - FOAMING AGENT BASE SODIUM LAURITE**  
**Foaming agent to produce light weight concrete**

**Description**    **EUCO-FOAMING AGENT** is a chloride free foaming agent to produce light weight concrete by entraining a controlled amount of air bubbles to the concrete mix .

**Main Purpose**        **EUCO-FOAMING AGENT** is used to promote foam in the concrete mix and the mortar used in :-

- Cast in-place for a unit of low cost terrace houses and bungalows. in lightweight bricks or blocks for high-rise buildings.
- In panels and partition walls of various dimensions either pre-cast or poured in place.
- In all types of insulation works, including cavity walls.
- In roofing and ceiling panels. in sound proofing application.
- In pre-cast / in-place exterior wall facades for all sizes of buildings.
- In foundations for roads and sidewalks.
- In sub-surface for sport areas, e.g. tennis courts.
- In infill sections between beams of suspended floors.
- In aircraft arresting beds. road crash barriers.
- In explosion-resistant structure. highway sound barriers.
- In floating barge, jetties, floating homes, and slope protection.
- In Roofs to produce light weight thermal and acoustic insulation layer .
- In Brick factories for the production of light weight blocks .
- In Light weight reinforced structural concrete elements such as light weight concrete used to fill the voids around the under grounds body and under water structures .

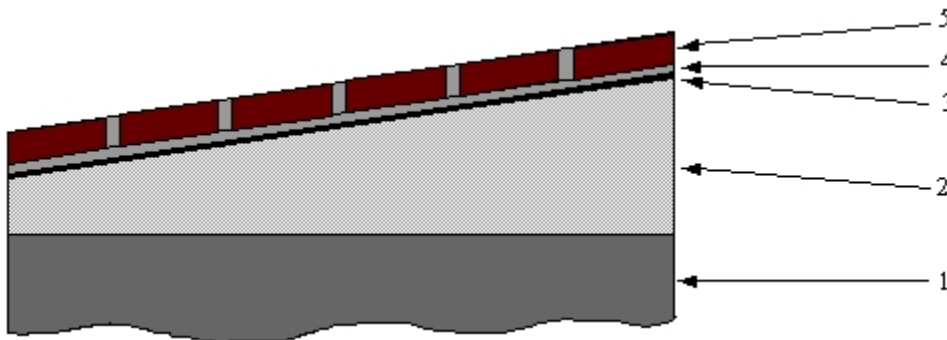
**Advantages**    - High thermal and acoustic insulation .  
                          - Wide choice of concrete densities .  
                          - Fire proof .  
- Roofing Insulation

For many years, **Euco foaming agent** has been supplied for roofing insulating in the Middle East. A low

density mix is chosen and the resulting air content gives the material excellent thermal insulation properties. The low density also has the advantage that it does not significantly add to the overall weight of the roof.

Roofing is probably the most widespread application of foamed concrete. Foamed concrete has two benefits when it is used for roofing. The first benefit is that it provides a high degree of thermal insulation. The second benefit is that it can be used to lay a flat roof to falls, i.e. to provide a slope for drainage. In countries where roofs are flat and where roof surfaces are used as part of everyday life, foamed concrete is strong enough to support foot or even vehicular traffic on the roof. Foamed concrete is also much lighter than slopes made from mortar screeds. This means that a roof with a slope made of foamed concrete imposes a lower loading on the structure of the building.

A typical specification for roof insulation is shown here:



### Wall Construction

**Eucofoaming agent** can be used for cast in situ walls. These can be made either by using traditional shuttering or hollow polystyrene moulds. This provides a quick and cheap method of building, with the added advantage of excellent thermal insulation. A wall made from 1200kg/m<sup>3</sup> density foamed concrete provides the same level of thermal insulation as would a wall made from dense concrete that was 5 times as thick and made from 10 times the quantity of materials as the foamed concrete wall.

### Floor Construction

**Eucofoaming agent** provides very good material for floor construction. It is ideal for building sub-floors quickly and cheaply and can be used for leveling terrain and raising floor levels as well as for insulation purposes.

Properties		
Appearance		liquid
Colour		transparent
Specific gravity		1,01
Viscosity		6,5 MPA
Chloride content		nil

Compatibility with cement	all types of Portland cement
Shelf life	up to 2 years
Surface tension	41,9 N/cm <sup>2</sup>
ASTM C 233	

**Dosage**

The optimum dosage should be determined by site or laboratory tests with the particular concrete mix, which enables the effects of workability, amount of air entrained and also concrete strength, gain to be measured.

**EUCO FOAMING AGENT** dosage differs according to the density needed for the light weight concrete and to the type of aggregates used It is recommended to use the compressor after adding Euco foaming agent to the mixing water .

**Test Results :**

Type	Density kg/m <sup>3</sup>	Purpose	Strength N/mm <sup>2</sup>	heat conduction factor W/ mk
E 400	Approx 400	insulation	-----	0.10
E 800	approx. 800	insulation	1.0 - 2.0	0.28
E 1000	approx. 1000	insulation	1.5 - 2.5	0.35
E 1200	approx. 1200	leveling	2.0 - 3.0	0.47
E 1350	approx. 1350	leveling	2.0 - 3.5	0.55
E 1600	approx. 1600	subgrade/encasement	3.0 - 6.0	0.74

Type	Wet density kg/L	cement kg	sand 0-4 mm kg	water approx. L	foam L	Euco Foaming Agent gram
E 400	400	350	50	140	650	700
E 800	0.85	300	400	100	560	520
E 1000	1.06	300	590	110	480	440
E 1200	1.27	300	800	130	380	350
E 1350	1.42	300	940	140	320	300
E 1600	1.66	300	1180	160	210	195

"K" Value for light weight foam concrete produced with **Euco Foaming Agent**.

Density T/m <sup>3</sup>	Lambda <sub>2</sub>	K-Value 5 cm	K-Value 10 cm	K-Value 15 cm	K-Value 20 cm	K-Value 25 cm
0.4	0.09	1.32	0.76	0,53	0,41	0,33
0.6	0.13	1,71	1,03	0,74	0,57	0,47
0.8	0.17	2.02	1,26	0,92	0,72	0,60
1.0	0.23	2.39	1,57	1,17	0,93	0,77
1.2	0.33	2,84	1,99	1,53	1,24	1,04
1.4	0.4	3,07	2,22	1,74	1,43	1,21
1.6	0.44	3.19	2.34	1,85	1,53	1,30

Packing : 5,20, 200 kg .  
Shelf life : up to 1 years