

# ADVA FOAMCRETE



## DESCRIPTION

ADVA FOAMCRETE is a light yellow high quality foaming agent for use in all types of light weight screeds and concrete. It is particularly designed for use in the production of foam concrete and for use with synthetic and naturally occurring aggregates of bulk densities 400kg – 1000kg per cubic meter.

## USES

ADVA FOAMCRETE is used for the products of aerated light weight concrete which has many applications such as;

- ▶ Making of roof falls without addition of unnecessary weight on the building.
- ▶ Good insulation both on roofs and wall panels.
- ▶ Improvement of acoustic properties of building.
- ▶ Insulation for pipes in cold conditions.

## ADVANTAGES

- ▶ Weight reduction
- ▶ Good thermal insulation
- ▶ Good acoustic value
- ▶ Does not attack iron or steel
- ▶ Low water absorption
- ▶ Fire resistant
- ▶ Resistant to organic growth
- ▶ Roof falls can be formed with greater ease
- ▶ Chloride free
- ▶ Economical to use

## APPLICATION

ADVA FOAMCRETE has an advantage over other foaming agents, in that it can be used with all kinds of foam generating machines.

ADVA FOAMCRETE is supplied ready for use. It should be added to concrete or mortar mixes during the mixing process at the same time as the water or the aggregate. It should not be added directly to the cement or mortar. No extension of normal mixing time is necessary.

### The following must be considered:

**CEMENT:** The quality of the cement will mainly determine the strength of the concrete. It should be fresh and fine to yield a homogeneous pasty mix.

**WATER:** The water should meet the standard of drinking water.



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**WATER-CEMENT RATIO:** Water-cement ratio is very critical due to its effect on the quality of foam concrete. The compressive resistance of the foam concrete is also determined by the homogenous distribution of the pores. The more even the distribution and smaller the pores, the better the compressive strength. The homogeneity is again a function of the consistency and thus of the water ratio.

According to experience the most advantages water-cement ratio lies between 0.4 and 0.45, too much water would have an adverse effect on the setting period.

## COVERAGE

Our experience has shown that one cubic meter of foam concrete requires between 400-450kg of cement depending on initial densities.

## HEALTH & SAFETY

As with all Bitumen products caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes immediately with fresh water. Should any of the products be accidentally swallowed, do not induce vomiting call for medical assistance immediately. Ensure that the container is available for medical attendant to examine any relevant instructions and content details.

## CLEANING

Cleaning equipment can be accomplished with water.

## TECHNICAL SPECIFICATIONS

Appearance	Light yellow liquid
Specific Gravity	1.1 at 20°C
Chloride Content	Nil
Nitrate Content	Nil
Solubility in water	Infinite
Freezing point	Less than 0°C
Flash Point	None
VOC	14.9 less water
Application Method	Supplied ready for use, to be added to concrete or mortar mixers.
Storage	Do not store in direct sunlight
Shelf Life	One year when stored in the original unopened container.
Packing	20 Ltr/Pail & 200 Ltr/Drum



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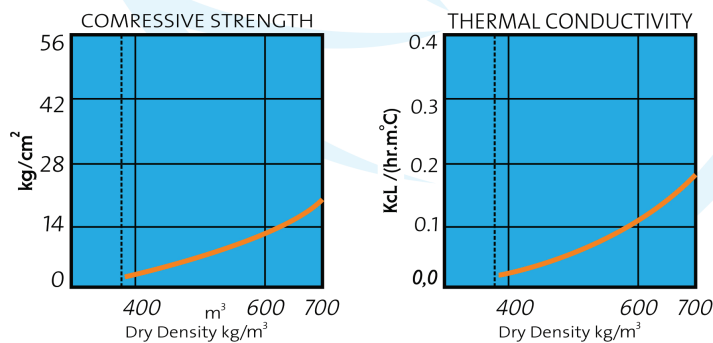
## TABLE A - CRUSHING STRENGTH

The approximate values crushing strength are as follows;

DENSITY (kg/m <sup>3</sup> )	COMPRESSIVE STRENGTH (kg/cm <sup>2</sup> )	MATERIALS
300	4	Only cement
400	5	Only cement
500	12	Only cement
600	14	Only cement
650	17	290kg (cement) + 300kg (sand)

## TABLE B - APPROXIMATE VALUES

MIX	TYPE	TOTAL WATER-CEMENT RATIO	DRY DENSITY AT 28 DAYS (kg/m <sup>3</sup> )
NEAT CEMENT	Pre-foamed	0.70 – 0.85	480
NEAT CEMENT	Pre-foamed	0.45 – 0.55	480
NEAT CEMENT	Pre-foamed	0.45 – 0.55	600 – 700
1:1 sand:cement	Entrained or Pre-foamed	0.45 – 0.55	1120
2:1 sand:cement	Entrained or Pre-foamed	0.55 – 0.65	960 , 1120
3:1 sand:cement	Entrained or Pre-foamed	0.65 – 0.75	1440
4:1 sand:cement	Entrained or Pre-foamed	0.75 – 0.85	1600 , 1200



Tolerances as per UEAct European Directives

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