



MAS FOAMCEMENT

General Description:

MAS FOAMCEMENT is an efficient low dosage foaming admixture, which is used to produce light weight foam concrete for a variety of insulation and construction applications. It contains synthetic and naturally occurring surfactants, which work with synergy with them.

Major Uses:

MAS FOAMCEMENT helps to produce a stable aerated mortar, by entrapping air into prepared cement slurry in the shape of discontinued air bubbles, to form a cellular structure throughout the mass. The cellular structure significantly reduces the thermal conductivity and density of concrete, resulting in a lower dead load imposed on the structure. It provides excellent resistance to freeze and thaw.

Uses:

MAS FOAMCEMENT can be used for the production of low density foamed mortar and concrete.

- As flat roof insulation screeds.
- Insulated floor screeds.
- As a backfill concrete.
- Fabrication of light weight beams, blocks and panels.
- Fire barrier
- Sound insulation of walls and ceilings.
- As encasement concrete.

Advantages:

- High efficiency even at low dosage.
- Excellent stability in alkaline conditions. A 1% aqueous solution creates stiff white foam with 40 to 50 times increase in volume.
- It can be used with all types of light weight aggregates to produce very low density concrete mixes.
- Chloride-free
- Asbestos-free

Physical Properties:

Appearance	Light brown liquid
Specific Gravity	1.02 kg/li. @ 25°C
Solubility	Soluble in water
Chloride Content	Nil as per BS 5075
Water Absorption	Absorption of foam cement containing 60% voids after 3 months immersion in water, shows only 20% increase in volume.
Toxicity	Non toxic
pH	7
Freezing Point	< 3°C
Compatibility with cement	Compatible with Portland cement
Shelf Life	At least 24 months if stored in tightly closed containers at normal ambient temperature.

Mixing Proportions: (Fig. 1)

Dry Density Kg/m ³	Sand Kg.	Cement Kg.	Water Kg.	Foamcem li.
800	370	350	120	0.80
700	340	290	110	0.90
600	---	500	250	1.10
500	---	420	210	1.18
400	---	330	165	1.25
300	---	250	125	1.30

The above information is given to the best of our knowledge based on laboratory test and practical experience. However, as the paint is often used under condition beyond our control, we cannot guarantee anything but the quality of the paint itself. We reserve the right to change the given data without prior notice.

MAS PAINTS & CHEMICAL INDUSTRY

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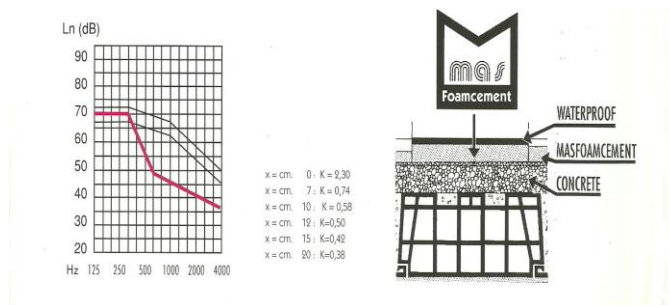


Crushing Strength: (Fig. 2)

Density	Kg/cm ²	Properties
300	5	Only cement
400	10	Only cement
500	17	Only cement
600	25	Only cement
700	29	Cement + Sand
800	31	Cement + sand

Thermal Conductivity: (Fig. 3)

Density	Kcal./(m.h.°C)
300	0.06
400	0.08
500	0.09
600	0.11
700	0.14
800	0.20



Direction for Use:

The optimum dosage and performance of MAS FOAMCEMENT is best assessed after preliminary tests on site using the actual mix design and the job under consideration.

Pre – foaming method:

MAS FOAMCEMENT is a concentrated material and should be diluted with water to prepare a 1% solution. The diluted solution is used to produce pre – foam by passing through a foam generating machine which produces a uniform and stable foam having a volume of 40 to 50 times that of the original solution. As an alternative, the water and foaming agent can be fed separately into the foam generator, which mixes it uniformly to produce foam. Add the pre – foam into the cement or sand cement slurry within a suitable concrete mixer.

Dosage:

The dosage of MAS FOAMCEMENT required will vary due to a number of factors including the final mortar density, mixing method and starting materials.

Overdosing:

MAS FOAMCEMENT is an air-entraining agent. The compressive strength of any mix will get reduced with increase in the content of MAS FOAMCEMENT as the level of entrained air will be increased. Overdosing of MAS FOAMCEMENT will normally produce an increase in air content, workability together with loss in compressive strength.

Mixing ratios:

Detailed mix formula is given in Fig. 1. The amount of MAS FOAMCEMENT used is subject to slight variations owed to differences in the hardness of local water supply and the properties of the cement used. Larger variations in the quantities of foam cement required can be owed to cases where water supplies are polluted and/or cement is old stock. It is therefore very important to obtain clean water and fresh cement in order to produce efficient and economical lightweight foam concrete.

Storage:

Preferably store in sealed conventional container, protected from extreme weather conditions.

Packaging:

MAS FOAMCEMENT is supplied in 200 lit. PVC Coated Drums

Safety Precautions:

MAS FOAMCEMENT is non-toxic and non – flammable. Splashes to eyes and skin should be washed off at once with water. It is advisable to use goggles and gloves while handling MAS FOAMCEMENT.

Foam concrete made by MAS FOAMCEMENT is of lightweight and free flowing. It can be placed easily by pumping and does not require compaction or levelling. It has superior strength, excellent resistance to water and frost and provides a high level of sound and thermal insulation. The thermal conductivity of foamed concrete is only 5 to 20% that of dense concrete.

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