

REC FOAMIX

FOAMING AGENT FOR LIGHTWEIGHT CONCRETE

DESCRIPTION

REC FOAMIX is an efficient, low-dosage foaming admixture used to produce lightweight foam concrete for a variety of insulation and construction applications.

FEATURES

REC FOAMIX helps produce a stable aerated mortar by entrapping air into prepared cement slurry in the form of discontinuous air bubbles, creating 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 also provides excellent resistance to freeze and thaw.

USES

REC FOAMIX can be used for the production of low-density foamed mortar and concrete for:

- Flat roof insulation screeds.
- Insulated floor screeds.
- Backfill concrete.
- Lightweight beams, blocks, and panels.
- Fire barriers.
- Sound insulation of walls and ceilings.
- Encasement concrete.

ADVANTAGES

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

TYPICAL PROPERTIES

Appearance:	Translucent, pale brown liquid.
Specific Gravity:	About 1.02 at 25°C.
Solubility:	Infinitely soluble in water.
Chloride Content:	Nil to BS 5075.
Water Absorption:	Absorption of foamed cement containing 60% voids after 3 months' immersion in water shows only a 20% increase in volume.
Toxicity:	Nontoxic.
Compatibility with Cement:	Compatible with Portland cement.
Shelf Life:	At least 24 months if stored in tightly closed containers at normal ambient temperature

DIRECTIONS FOR USE

The optimum dosage and performance of **REC FOAMIX** are best assessed after preliminary tests on site using the actual mix design and the specific application under consideration.

PRE-FOAMING METHOD

The recommended dosage of **REC FOAMIX** should be diluted with water to prepare a 1% solution. The diluted solution is used to produce pre-foam by passing it through a foam-generating machine, which produces uniform and stable foam having a volume 40 to 50 times that of the original solution.

As an alternative solution, a practice involves diluting the foaming agent with 10 to 15 times its volume of water and feeding it into the foam chamber, where it is mixed uniformly to produce foam. The foam is thereafter passed to the cement or sand-cement slurry chamber and mixed to uniformity.

DOSAGE

The dosage of **REC FOAMIX** required will vary depending on a number of factors, including the final mortar density, mixing method, and starting materials.

OVERDOSING

REC FOAMIX is an air-entraining agent. The compressive strength of any mix will decrease with an increase in the content of **REC FOAMIX**, as the level of entrained air increases. Overdosing of **REC FOAMIX** will normally produce an increase in air content and workability, together with a loss in compressive strength.

MIX RATIOS

Typical mix batches to produce approximately 1.0 m³ of foamed concrete.

Dry density Kg/m ³ Sand KG	Sand Kg	Cement (Kg)	Water (L)	Foam(L)	REC FOAMIX dosages (L/m ³)	Thermal conductivity w/m- °K
400	----	330	165	730	0.63	0.07
500	--	420	210	657	0.45	0.09
600	--	500	250	591	0.31	0.11
800	370	370	192	530	0.33	0.17
1000	500	410	213	478	0.32	0.22
1200	780	350	182	414	0.30	0.30

The recommended water content is for moderate summer conditions. Water content varies with ambient temperature and humidity. The quality of cement and the water/cement ratio will mainly determine the quality and strength of the concrete. Proper curing and the age of the concrete also affect compressive strength.

PACKAGING

REC FOAMIX is supplied in pails, cans, drums and tanks on the demand of the client.

STORAGE

Preferably store in sealed conventional containers, protected from extreme weather conditions

PERFORMANCE

Foamed concrete made with **REC FOAMIX** is lightweight and free-flowing. It can be placed easily by pumping and does not require compaction or leveling. Foamed concrete resists 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.

SAFETY PRECAUTIONS

REC FOAMIX is nontoxic and non-flammable. Splashes to the eyes and skin should be washed off immediately with water. It is advisable to use goggles and gloves while handling **REC FOAMIX**.

QUALITY STATEMENT

All our products are manufactured to comply with our internal QA/QC program and quality management system to ensure consistency and quality.

DISCLAIMER

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