

SpEC Confoam

CONCENTRATED FOAMING AGENT FOR CEMENT SYSTEMS

DESCRIPTION

SpEC Confoam is a highly concentrated liquid foaming agent that can be used at low dosage rates by direct addition or as a pre-foam to obtain light weight screeds and mortars. The product is readily soluble in water and can be used with all types of Portland cement and light weight aggregates.

TYPICAL USES

SpEC Confoam may be used in applications where a light weight concrete, screed or filling mortar is required. Such applications include, but are not limited to:

- Insulation screeds on flat roofs and floors
- Fabrication of light weight panels and blocks
- Insulating mortar to cold stores, pipelines, etc.
- Filling old and disused sewers, pipes, tanks, etc.
- Reinstatement of road trenches and other large voids.

ADVANTAGES

- Excellent foam structure stability over a wide pH range
- High foam volume production - addition of 1% SpEC Confoam in water provides a foam with up to 50 times increase in volume.
- Suitable for screeds and mortars with a wide dry density range.

TECHNICAL DATA

Appearance	Hazy Amber Liquid
Specific Gravity	1.04
Chloride content	<0.01 %
Density Range	400-1, 800kg/cm ³
Freezing point	Protect from frost

APPLICATION

SpEC Confoam may be used in two ways: preparing a pre-foam solution to be incorporated into the cement or mortar mix, or direct addition of the concentrate into the mix using a high speed mixer.

While the direct addition method is simpler and can be done using readily available mixing equipment, the pre-foam method allows for better density control and cellular foam stability, providing better results.

Pre-foam Method

Prepare a 1% pre-foam solution with 1 litre of **SpEC Confoam** with 100 litres of clean water, using a slow speed (300-350rpm) drill machine with a suitable paddle attachment to ensure thorough dispersion of the concentrate into the solution. Pass the pre-foam solution through a foam generating machine to produce a uniform and stable foam. The resultant foam is then incorporated into the cement or sand/cement slurry in a concentrate mixer.

Note: The foam will have a volume 40-50 times greater than that of the original solution, and allowance must be made for the volume change in the mixer.

Direct Addition (Forced Mixing)

A high speed mixer that can provide vigorous mixing of the components is required - a simple tumble action mixer will not provide good results. Load into the mixer half the quantity of sand, all the mixing water and the required quantity of **SpEC Confoam**. Mix for one minute then add the balance of sand and the total quantity of cement, and continue mixing for 3-4 minutes. It is recommended that density checks be made, especially on the first batch.

When applying light weight mixes prepared with **SpEC Confoam**, it is important to keep in mind the following points:

- The performance of any foaming agent depends on a number of factors such as quality of the cements and sands used, temperature, time of mixing, etc. It is strongly recommended that site trials be conducted to establish the required density and consistency before proceeding with the work.

- The strength of a given mix rises rapidly as the density increased, however the water-cement ratio is not as critical as in normal cementitious mixes.

Consult SpEC Technical Department for guidance on density monitoring.

TYPICAL MIX DESIGNS

The table below shows quantities of materials required to produce 1cm of light weight mix. These batches are made with a pre-foam solution of one part **SpEC Confoam** to 100 parts water.

Dry Den. (kg/cm)	Sand (kg)	Cement (kg)	Water (litre)	Confoam (litre)
1,200	780	350	140	0.30
1,000	500	400	160	0.32
800	—	600	240	0.21
600	—	450	180	0.31
400	—	310	125	0.63

Suggested mix design for light weight screed with a dry density of 1,200 kg/cm:

- 38 litres of water containing 1% SpEC Confoam (~ 55 seconds from the foam unit)
- 50 kg cement
- 150 kg sand

Yield: 0.178m³

Wet Density: 1,300 - 1,400 kg/m³

CURING

Exposed areas must be protected to avoid risk of premature drying. Allow 7-14 days of drying before application of toppings, membranes, etc.

EQUIPMENT CLEANING

Tools and equipment should be cleaned with water immediately after use.

PACKAGING

SpEC Confoam is supplied in 5, 25 and 200 litre drums.

STORAGE & SHELF LIFE

The material has a shelf life of 12 months when stored in sealed containers in dry and cool conditions.

HEALTH & SAFETY

Provide protection from contact with skin and eyes. It is strongly recommended to wear gloves and goggles while using the product. Skin contact shall be washed with plenty of foam and water. Contact with eyes shall be washed immediately with copious amounts of clean water, followed by medical attention.

Dispose of all waste in accordance with the local environmental regulations.

Other SpEC Admixtures:

- **SpEC Liquid Mortar Plasticiser** - Liquid Mortar Plasticiser for Cementitious Mixes
- **SpEC Integral Liquid Waterproofer** - Integral Liquid Waterproofer for Concrete and Mortar Mixes,
- **SpECbuild BA10** - Latex Admixture and Bonding Agent for Cementitious Mixes.

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