

PRODUCT DATA SHEET

PRODUCT NAME

Isofoamer Infinity – Foam Generator

MANUFACTURER/PROCESSOR

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DESCRIPTION

One of the most important ingredients required to produce foamed concrete is the foaming agent.

The foam generator acts as a medium which transforms water & liquid chemical into stable foam. Foam generators come in many sizes depending on the ability to hold and transform liquid chemical into foam.

As an example, one would need about 500 liters of foam to produce 1 cubic meter of foamed concrete at a density of approx. 1100 kg/m³. For a large mixer machine, for ex. 250 liters effective capacity, we need 125 liters of foam.

In order to produce 138 liters of foam, one has to dilute as an example 0.25 liter of chemical foaming agent in 8 liters of water and subsequently transform this 8.25 liters of premix solution into 138 liters of foam using the generator.

As you can see, the expansion rate is 16 times (8.25/138). We can increase this expansion rate by introducing more air but this will degrade the quality of the foam. Therefore the capacity of a foaming generator will depend very much on its ability to hold and pump out maximum amount of foam.

Isofoamer Infinity is a continuous foam generator specially designed for the production of lightweight foam concrete for densities varying from 300 up to 1600 Kilograms per cubic meter. Isofoamer Infinity is very simple to operate, when the plastic tanks are full of Isolite-RTUC foaming agent and water, it produces continuous foam once it's ON.

This foam is added, through a hose, to the mixer where slurry composed of water/cement or water/cement/sand is ready, then pumped to the pouring place.

USES

Principal applications for Isofoamer Infinity are:

- Foam Cellular Concrete.
- Foam generator for light weight webs impregnation.
- Foam generator for felt impregnation plant
- Foam impregnation in a roofing plant
- Cold store insulation.
- Filling cavities.

STANDARDS & NORMS

Isofoamer Infinity produces foam for foam concrete conforming to the requirements of ASTM C869-91, ASTM C796-04, ASTM C494, BS 5075 and BS EN 934.

DIRECTIONS FOR USE

It is recommend to do preliminary tests on site using our Isolite – RTUC and the actual mix design in order to get the optimal dosage and performance.

PROPERTIES

- High efficiency at low, medium and high dosages.
- Lightweight.
- Durable.

- Durable.
- Economic.
- Simple.
- Easy to Regulate.
- Adjustable Output.
- Continuous Operation.
- Easy Clean Up
- Powered by external Compressed Air.

COMPATIBILITY TO FOAMING AGENTS

All organic and synthetic foaming agents are compatible with Isofoamer Infinity – Foam Generator.

METHOD OF USE

The typical foam generator runs from an air compressor and consists of a holding tank, dosing unit and a static mixer. The purpose of the holding tank is to hold the diluted foaming agent and subsequently deliver it through a dosing unit and then to static mixer. It is normally in the form of a pressurized tank and needs to be closed tight for operation.

The foaming agent Isolite – RTUC for ex. is mixed with water in separate tank, coupled to Isofoamer Infinity. Then the Isofoamer Infinity is put ON, the generated foam is added to the ready mortar, mixed in Isomixer and pumped to the substrate with the help of Isopump (positive displacement pump).

The main advantages of Isofoamer Infinity models are compact dimensions and light weight, as well as low price in comparison with other foam generators.

CADVANTAGES OF ISOFOAMER MINI FOAM GENERATOR

- Foam Capacity of 60 to 1500 liters per minute allowing its use on small as well on automatic production lines.
- Compatible to all types of concrete and mortar mixers.
- Compatible with organic & synthetic foaming agents.
- Long service.
- Compact overall dimensions allow to transport it manually.
- Low power consumption and low pressure consumption.

ISOFOAMER INFINITY TYPES

The volume of foam obtained from such a system depends very much on the size of these tanks. For large volumes it is impractical to use the tank system since it is bulky to carry about. Large capacity holding tanks are heavy and cumbersome for smaller scale on site production. (Isofoamer Infinity - BAR 20).

In order to overcome this problem, we have developed a compact version of the static foaming generator to cater for small to medium scale for factory or on-site production of foamed concrete. These static foam generators are perform well since they rely on mechanical means to deliver the chemicals and are suitable for pilot plant scale production, researchers and self - help house building.

The Isofoamer Infinity - BAR 20 has the capacity to produce about 100 to 200 liters of foam in one minute. They can be used with an air compressor.

It has specially designed chambers for producing the maximum and efficient output of foam. In addition all of the models have controls for modifying the density of foam and also expansion ratios.

Isofoamer Infinity (foam generators) come in three models Type: BAR 20, BAR 40 & BAR 80.

Isofoamer Infinity - BAR 20 has the lowest output of about 60 – 120 liters/minute.

Isofoamer Infinity - BAR 40 has an output of 200 – 300 liters/minute.

Isofoamer Infinity - BAR 80 is for larger scale (up to 1.3 cubic meter / mix) continuous foam production.

Isofoamer Infinity - BAR 20 is suitable for mixing volumes of less than 0.2 cubic meter / mix and is suitable for beginners, DIY builders and researchers.

Isofoamer Infinity (foam generators) have been tested with Isolite-RTUC foaming agent, many other foaming agents and are compatible with the above mentioned chemicals, conforming closely to the related data.

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Tests should be carried out only by chemists or chemically qualified lab technicians.

Before using any chemical, read its label and Material Safety Data Sheet. © 2018 Société Raymond Barakeh SAL

ISOFOAMER INFINITY	BAR 20	BAR 40	BAR 80
Type of equipment	Portable	Mobile	Mobile
Air Compressor	Without	3 HP	5.5 HP
Supplied with air at min.	8 Bars	8 Bars	8 Bars
Minimum air flow	150 Liters/minute	300 Liters/minute	500 Liters/minute
Dimensions in cm (L x l x h)	80 x 30 x 28	110 x 100 x 100	110 x 100 x 100
Volume of water & Isolite-RTUC tank	-	300 Liters	2 x 300 Liters
Volume of foam for one cycle	425 Liters/minute	1000 Liters/minute	1300 Liters/minute
Foam Density	40 – 90 Grams/Liter	40 – 90 Grams/Liter	40 – 90 Grams/Liter
Air working pressure	3 Bars	4 Bars	4 Bars

Remark:

The density of foam must be 45 grams to 75 grams per liter

