

The Aercrete System

Mobile production of foam concrete



Foam Concrete

Aercrete FC (foam concrete) is a lightweight concrete which can produce densities from 400 kg/m³ up to 1800 kg/m³. Foam concrete is made from cement, sand, water and foam.

Aercrete FC's portability allows it to mix the raw materials directly at the building site and contains its own concrete pump. To achieve the best results we use the following:

- Aercell A-7, a foam agent of the highest quality which is based on a service active substance (surfactant). This makes the Aercrete FC highly suitable for building construction sites. This unique product can be used for all densities and can be stored for many years.
- Aercrete 625, a portable machine which can continuously produce foam concrete onsite. The machine blends and pumps fresh foam concrete directly in cast form.

Areas of use

Foam concrete can be used in many different areas, for example:

Land

- filling cavities
- frost-insulating compensation of foundations for streets and roads.
- stabilizing easy filling for bridge supports.
- isolating and stabilizing underground pipes and heating systems.
- injecting and filling of docks and quays.
- filling tanks and various pipe systems.

House

- easy filling of attics
- easy filling of beams
- fire protection for walls
- isolation for walls
- ground isolation under the foundation for houses and industrial estates
- concrete blocks
- wall elements
- foundations (slab-on-grade)

Characteristics

Despite its low weight, the fresh foam concrete produced by the Aercrete System pours in a stable and flowing way when used with the unique foam preparation formula (Aercell A-7).

Other characteristics of the foam concrete include:

- environmentally friendly
- heat isolation

- pumpableself leveling
- sound isolation
- vibration free

- fire isolation
- isolation against frozen ground
- frost resistant
- high load bearing capacity
- mouldable

Equipment

Aercrete 625 is a mobile unit which blends foam concrete from sand, cement, water, Aercell A-7 and air directly at the building site.

The machine continually mixes all ingredients mechanically, which allows for fresh concrete with the best properties. The process is controlled and supervised by a computer which measures all ingredients as stated on the various recipes. All important parameters are logged so that the recipe is followed to proper standards.

At least two people are required to run the machine, one machine operator who provides the machine with raw materials and one person to place the foam concrete in a mold.

The machine is easy to service thanks to the well known component manufacturers which produces the high quality components. Cleaning can be done on site with the built-in high pressure hose.



- stable and no
 - settling
 - easy to operate
 - excavator included
- ation

Specifications

- Pumps concrete up to a rate of 25 m³/h
- Standard recipes for 400 1800 kg/m³
- 10 different customized recipe settings
- Remote controlled
- Data logging of production
- Hydralic support legs for easy leveling
- Folding tow arm with different attachments
- Compressed air

Data

Weight:	3500 kg
Width:	2250 mm
Length:	6520mm
Height:	1970 mm

Capacity:	8-25 m³/h			
Pump length:	<200 m			
Pump hight:	<30 m			



Recipe for 1 m³ of Aercrete FC

		Concrete		Foam			Wet
Density (kg)	Cement (kg)	Sand (kg)	Water (I)	Aercell (l)	Water (I)	Air (l)	weight (kg)
400	320	0	140	0,94	35,2	716	498
600	360	150	160	0,83	31,0	630	703
800	360	350	160	0,74	27,4	559	899
1000	360	550	140	0,67	24,9	506	1077
1200	360	750	140	0,57	21,3	434	1273
1400	400	900	160	0,46	17,1	349	1478
1600	400	1100	160	0,36	13,6	277	1675
1800	400	1300	160	0,27	10,1	205	1871





Production

The below figure depicts the Aercrete System at a building site. Water is connected to the machine, cement can be sourced from a silo or from sacks. Sand is added by hand or from a machine. A third slot can be filled with fly ash or polystyrene beads.



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