



TECHNICAL DATA SHEET

FOAMTEK

SPECIFIC ATOTIC FOAMING AGENT
FOR LIGHT CONCRETES**DESCRIPTION**

FOAMTEK is a high foaming product, specifically designed to produce Lightweight Cellular Concrete.

FOAMTEK is also stabilizing in the preparation of Lightened Concrete with expanded polystyrene beads.

TECHNICAL DATA

Table 1

Appearance	Liquid
Color	Amber
Density 15 ° C (g / cm ³)	1.00 ± 0.02

**LIMITATIONS**

It must be used with approved equipment, such as our Compactek.

PRECAUTIONS

- It must be kept in its original closed container.
- Store in dry environments.
- It must not be contaminated by oils, benzines, solvents, detergents or other.
- Do not expose to temperatures below 0 ° C
- is. Refer to the Safety Data Sheet

CUSTOMS TARIFF:

382340000



Fig. 1

FEATURES**THE FOAMTEK SYSTEM****FOAM PRODUCTION**

FOAMTEK, mixed with water and air (see Table 2), in a "turbulence" state, using a machine (Compactek Foam Generator) Fig. 2, produces a white, dense, creamy foam (Fig.1) perfectly miscible with the most common cementitious binders.

DOSAGE

Table 2

FOAMTEK (litres)	WATER (litres)	AIR (litres)
2,5	100	1400-1500

CCL PRODUCTION (Lightweight Concrete)

FOAMTEK foam mixed with cement grout or sand and cement mortar, allows the preparation of a material called Lightweight Cellular Concrete, containing countless and tiny air bubbles. By varying the ratio of the foam, cement and sand, in relation to the project specifications, a lightweight MV concrete variable between 300 kg / m³ and 1800 kg / m³ can be obtained.

MIX DESIGN

See table 3



Fig. 2

**TEKNA CHEM S.p.A.**

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Table 3 MIX DESIGN CELLULAR LIGHT CONCRETE

Light Dry MV concrete	Sand S & Cement C					Water	Foamtek	Wet Light MV concrete
	S : C 4 : 1	S : C 3 : 1	S : C 2 : 1	S : C 1 : 1	S : C 0 : 1			
Kg / m ³	Kg / m ³	Kg / m ³	Kg / m ³	Kg / m ³	Kg / m ³	Liters / m ³	Liters / m ³	Kg / m ³
1800	1400 350	1275 425				280 – 250	0.30 – 0.28	1940 – 1930
1700	1320 330					230	0.38	1835
1600	1250 315	1155 385				250 – 200	0.45 – 0.41	1745 – 1715
1500		1080 360				250	0.49	1645
1400		1020 340	880 440			270 – 305	0.56 – 0.51	1560 – 1570
1300			820 410			285	0.59	1465
1200			760 380			265	0.67	1365
1100			690 345			240	0.76	1245
1000			630 315			220	0.84	1145
900				410 410		290	0.85	1070
800				365 365		260	0.94	960
700				320 320	580	230 – 290	1.03 – 0.88	850 – 915
650					540	270	0.93	860
600					495	247.5	1.00	795
550					455	227.5	1.05	735
500					415	207.5	1.11	680
450					375	190	1.16	620
400					330	165	1.22	555
350					290		1.28	500
300					250		1.33	445

The above data may vary greatly depending on the type of cement, sand and water used. They are therefore purely indicative.



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Table 4 CCL Compression Resistance

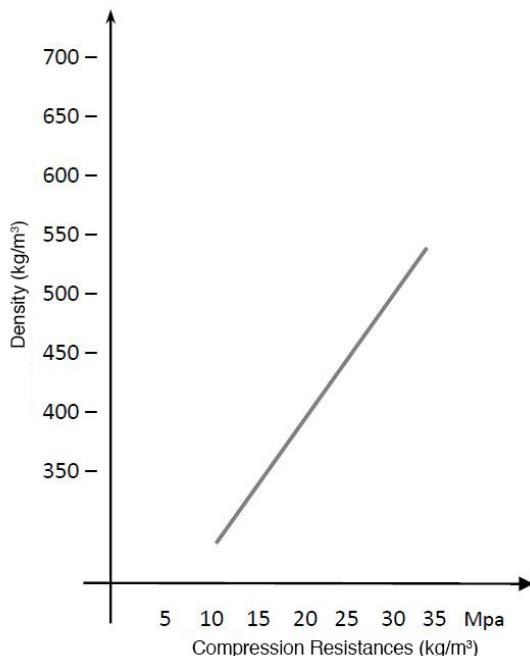


Table 5 CCL Thermic insulation

MV (kg/m³)	λ (c.c.t.) W/m²K
400	0.09
480	0.10
560	0.11
640	0.13

MV (Kg/m³)	Conductance (K) in W / m²K depending on the thickness				
	5 cm	10 cm	15 cm	20 cm	25 cm
400	1.32	0.76	0.54	0.41	0.34
450	1.43	0.83	0.59	0.45	0.37
500	1.53	0.90	0.64	0.50	0.40
550	1.62	0.97	0.69	0.54	0.44
650	1.78	1.08	0.78	0.61	0.50

MAIN APPLICATIONS

They refer to Lightweight Mobile Concrete MV 400 - 500 kg / m³ and are mainly for:

- 1) Insulating slope screeds for flat roofs
- 2) Insulating backing screeds

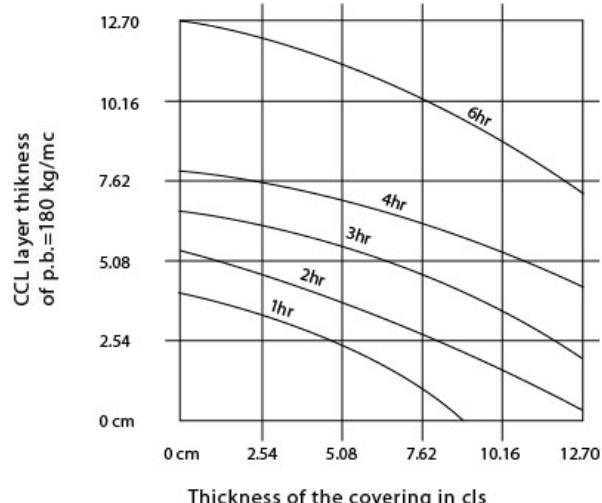
Fire resistance
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Diagram 1

Table 6 CCL Fire behavior

Test	Index
Flammability	0
Flame Propagation	0
Smoke Development	0



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OTHER APPLICATIONS

They refer to Lightweight MV Concrete variable between 300 and 1800 kg / m³:

- filling cavities (wells exhausted, disused tanks, soil fractures, etc.)
- fire barriers
- road restoration
- landfill covers
- land remediation
- foundations on unstable land
- detected on low lift soils
- filling for restoration of soils with landslides risk
- explosion-proof barriers
- emergency aerodrome slopes

CHARACTERISTICS

The characteristics of Lightweight Cellular Concrete vary with the specific weight of the same.

MECHANICAL RESISTANCE

For Lightweight MV Cellular Concrete 400 kg / m³, see Table 4.

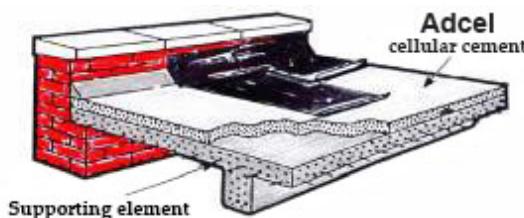
For specifications for MV than 400 kg / m³, ask TEKNA CHEM SpA's technical office.

THERMIC INSULATION

For Lightweight MV 400 kg / m³ Cellular Concrete, see Table 5. For specifications for MV other than 400 kg / m³, ask TEKNA CHEM SpA's technical office.

FIRE BEHAVIOR

See Table 6 and Diagram 1.



MECHANICAL EQUIPMENT

The Cellular Lightweight Concrete will be produced using equipment approved by TEKNA CHEM SpA:

- Compactek Slim
- Compact (Fig. 2)

MIXTURES WITH ONLY CEMENT

For the installation of concrete screeds, ie MV between 300 and 650 kg / m³, the complete Compactek set is recommended, consisting of:

- n. 1 Automatic continuous foam generator
- n. 1 Mixer,
- n. 1 Concrete Loading Cochlea,
- n. 1 Pump
- n. 1 Control Unit
- n. 1 Roll x 50 m rubber hose reinf.
- n. 1 Roll x 50 m tube in Plastic Reinf.
- Joints, links and instruction manual

MIXTURES WITH CEMENT AND SAND

For the laying of screeds (sand cement-based) lightened, with MV higher than 650 kg / m³, traditional mixers may also be used.

PACKAGING

FOAMTEK is available in the following packages:

- 20 kg cans
- 200 kg drums
- 1000 kg tankers



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