

GRANULATS EXPANSÉS DE LA MAYENNE



SALES MANAGER

Case Postale 196 – 11 rue SAINT YVES
75014 PARIS - France
Phone : 33 1 43 20 95 95
Fax : 33 1 42 79 99 43

GranuleX®

<http://www.gem.xper.net>

GRANULEX®
Multi Uses Cellular
Aggregates

Crushed GRANULEX® is a light aggregate manufactured from expanded slates in 1.130 °C revolving kilns then crushed in various sizes. It is a light and general-purpose material very convenient to make concretes for blocks and ready-made units.

- Grains Form Irregular, with asperities
- Aggregate size From 0 to 9 mm
- External Color Dark Grey, inalterable
- Surface aspect Porous
- Internal structure Cellular
- Particles porosity 65 to 76 % (closed pores)
- Incombustibility Total
- Gelidity Low
- CCTU 0,12 W/m/°C
- Risk of corrosion Null
- Norm CE 13055-1

Usual particles size range

Reference	109	124	Sands
Size range mm	4 to 9	2 to 4	0 to 4

Any particles size range will be realized on demand

Chemical composition - average values

SiO₂ 63 % - Al₂O₃ 21 % - Fe₂O₃ 8,5 % - K₂O 3,6 % - Na₂O 1,5 % MgO 1% - CaO : 0,5 % - C max 0,01 % S of sulphur : 0,000 %

Quantity of free alkaline - From LPC N° 37

Na ₂ O eq	SO ₃	S _T	S _{Ex}	Cl
0.044	0.02	0.02	0.008	0.0011

Physical characteristics of GRANULEX®

Unit in Kilo by cubic meter (± 5%) Measurement made on dry aggregates

Reference	Bulk Density	PDD	Norm NF
109	530	890	P18.309 Class B
124	580	990	P18.309 Class B

Characteristics of GRANULEX® 's sands

Reference	Bulk Density	PDD	Fineness.
1004	980	1.580	< 3,7
104	700	1.170	< 3,2
1024	840	1.400	< 3,5
1014	750	1.280	< 2,8

Measurement of water's absorption on aggregates 109

Method by water's pycnometer Dipping time	Weight's Absorption %	Volume's absorption%
1 hour	21.00	23.60
2 hours	22.00	24.70
30 days	27.00	30.30

Light aggregates GRANULEX® are deliverable in bags, big bag, in bulk by truck bucket and in bulk by tank-trailer with pneumatic draining (please consult us).

Uses of crushed GRANULEX®

Reference	Uses
109	Manufacture of reduced blocks, agent of reduction of composed substrates
124	Complement on middle size aggregate
104/1004 1014/1024	Sands for breeze-blocks, partition walls and structural elements

FORMULAS FOR LIGHT CONCRETE ELEMENTS OR BLOCKS

	Constrained Elements		Breeze-blocks		
	Usual	Light	Usual	Light 1	Light 2
Aggregates	1185 Kg	300 Kg	1075 Kg	610 Kg	550 Kg
Sands 0/4	730 Kg	650 Kg	898 Kg	520 Kg	425 Kg
Sands 0/2			100 Kg	100 Kg	26 Kg*
Cement	400 Kg	400 Kg	180 Kg	180 Kg	180 Kg
Water	100 L	171 L	76 L	70 L	60 L
MVA Kg/m ³	2380	1460	2350	1460	1210
Saving weight		39 %		38 %	48 %

*0 to 100 µm

HIGH PERFORMANCE CONCRETE WITH WEIGHT'S SAVING OF 30 %

Sands F <2,8	Cement	Water	M.V.	Rc 28 D	Rf 28 D
850 Kg	600 Kg	300 L*	1.670	60	9,3

*which 150 L for previous humidity on sands

Characteristics of GRANULEX® in prefabrication

The use of crushed GRANULEX® is recommended for manufacturing light breeze-blocks and ready-made units. Some recommendations are essential:

- Respect a little longer time of mixing
- For blocks, start the pre vibration with drawer filled up to 50%
- Decompress as soon as the mould has completely stop vibrating
- Pay attention to suppress any vibratory phenomenon when transporting the blocks to the drying ovens

Tricks and easy ways

- At the release from the mould, a trace of milt has to appear when one passes his hand on the block. If not, it means that the mixture is either too dry or misses fines.
- In absence of Hydrostop, a calibration of moisture transmitters is recommended as it is usually necessary to adjust them, in order to regulate properly the addition of water. If needed, proceed to a preliminary saturation of the grains.

Questions : gem@xper.net

Specification of GRANULEX® are given as an indication. They can evolve/move constantly in order to improve the quality of the product. On our Internet site <http://gem.xper.net> you will find the very last information available.