



GRANCHIO

The proven system to create ventilated crawl spaces

GRANCHIO



The proven system to create ventilated crawl spaces

GRANCHIO is a disposable formwork in recycled polypropylene which is used, as an alternative to traditional systems, for the construction of ventilated crawl spaces in both new constructions and renovation projects.

In accordance with the recommendation of the Commission of the European Communities of 02/21/90, due to the positioning of special ventilation holes, crawl spaces made with the GRANCHIO formwork benefit from good ventilation; moreover, humidity is eliminated, and radon gas is dispersed.

We recommend an alternation of holes every 4/5 m. with a diameter of 8/12 cm.

GRANCHIO, being a disposable formwork, is designed to support the weight of the operators and the concrete during casting.

The useful load varies depending on the capacity of the ground, the underlying lean concrete and the thickness of the slab.

GRANCHIO is equipped with an interlocking connection system which makes it fast and easy to lay. Also, its hollow structure allows pipes, ducts and cables to be positioned in every direction.

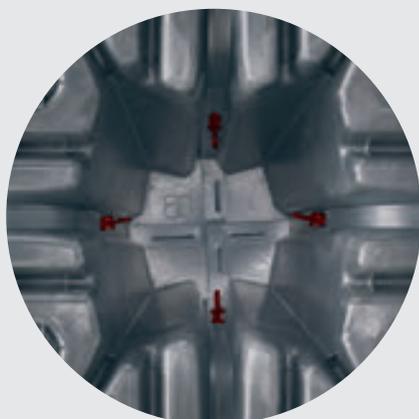


Fixing key for heights of 60-65-70 cm

*Detail 1 -
joining and fixing
of 2 elements*



*Detail 2 -
joining and fixing
of 4 elements*



In heights 60-65-70 cm, GRANCHIO is equipped with fixing keys that ensure improved grip for the legs during the casting of the concrete.



EXCERPT OF LOAD TESTS

performed at the Istituto
Giordano in Bellaria (RN)

TEST CERTIFICATE N. 185603/137881/04

The Granchio sample in H40 composed of nine elements was subjected to a load test by means of the hydraulic jack acting on the slab with a thickness of 5cm. reinforced with electro-welded Ø5 mesh measuring 20x20.

The load was applied through a metal load spreader measuring 32x32x4 cm

The tests were carried out to a maximum load of about 195.5 kN (maximum load at break) with final failure of the order of 7.64 mm at a load of 166.7 kN.

Resistance to temperature is -21 °C +53 °C

TABLE OF USEFUL LOAD ON THE SLAB IN Kg./m²

substrate thickness in cm. concrete R.c.K. 150	thickness of slab in cm Rck ≥ 250 electrostatic mesh Ø6 20 x 20 FeB44K	GRA 5-10-15-20-25-30-35- 40-45-50-55-60					
		ground capacity expressed in Kg/cm ²					
		0,6	0,8	1,00	1,20	1,50	2,00
5 cm.	3 cm.	450	700	1000	1300	1800	2000
10 cm.	3 cm.	1200	1800	2000	2000	2000	2000
15 cm.	3 cm.	2000	2000	2000	2000	2000	2000
10 cm.	8 cm.	1100	1700	2300	2900	3800	5400
15 cm.	8 cm.	2200	3200	4200	5200	6700	9300
20 cm.	8 cm.	3600	5200	6700	8300	10000	10000

FOUNDATION IN Rck CONCRETE ≥ 200 - MESH Ø6 10x10

substrate thickness in cm. concrete R.c.K. 150	thickness of slab in cm Rck ≥ 250 electrostatic mesh Ø6 20 x 20 FeB44K	GRA 65-70					
		ground capacity expressed in Kg/cm ²					
		0,6	0,8	1,00	1,20	1,50	2,00
5 cm.	3 cm.	200	400	600	850	1200	1700
10 cm.	3 cm.	900	1400	1900	2000	2000	2000
15 cm.	3 cm.	1900	2000	2000	2000	2000	2000
10 cm.	8 cm.	800	1200	1700	2100	2900	4000
15 cm.	8 cm.	1700	2500	3400	4500	5500	7500
20 cm.	8 cm.	3000	4300	5500	7000	8900	10000

FOUNDATION IN Rck CONCRETE ≥ 200 - MESH Ø6 10x10

On request we will provide a calculation report for the load commissioned; certification of the maximum capacity of the land and the construction management remain the responsibility of the Technical Works manager.

PROFILE



Perimetral accessory, as an alternative to the traditional wooden formwork which, with its lightweight quality and ease of use, makes it possible to create both the foundation beams and the crawl space, thereby minimizing the time taken for installation.

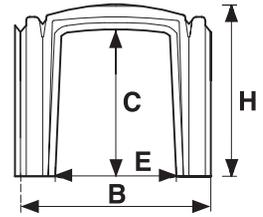
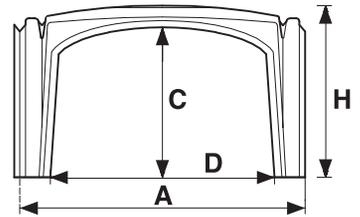
NB: the profile must be fixed to the base



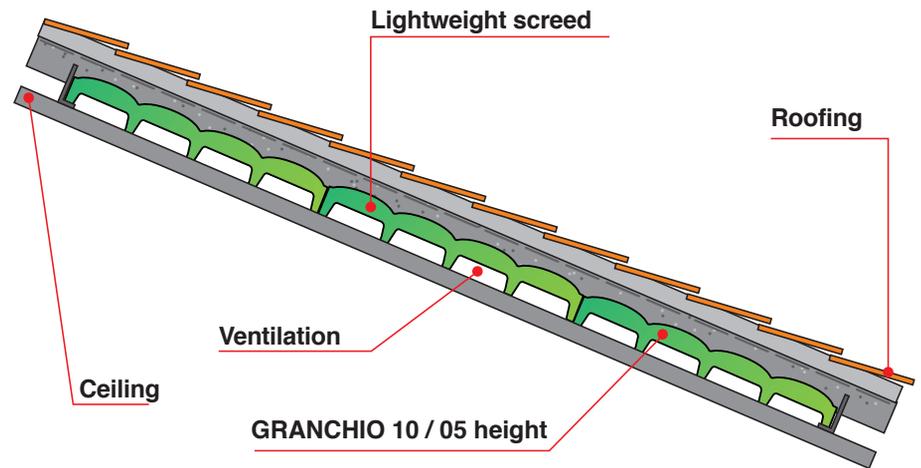
Model	Dimensions in cm.
PRO10	200 X 17
PRO15	200 X 23
PRO20	200 X 28
PRO25	200 X 33
PRO30	200 X 38
PRO35	200 X 43
PRO40	200 X 48
PRO45	200 X 53
PRO50	200 X 58
PRO55	200 X 63
PRO60	200 X 68
PRO65	200 X 73
PRO70	200 X 78

WORKING DIMENSIONS AND CHARACTERISTICS OF EACH ELEMENT

	GRA 5	GRA 10	GRA 15	GRA 20	GRA 25	GRA 30	GRA 35	GRA 40	GRA 45	GRA 50	GRA 55	GRA 60	GRA 65	GRA 70
A cm.	80	80	75	75	75	75	75	75	75	75	75	75	75	75
B cm.	60	60	50	50	50	50	50	50	50	50	50	50	50	50
C cm.	2,5	7,5	8	13	18	23,5	28,5	33,5	38	43	48	54	60	65
D cm.	12	12	57	60	58	59	57	51	56	60	62	55	55	59
E cm.	12	12	30	30	31	32	30	41,5	32	33	34	33	33	35
H cm.	5	10	15	20	25	30	35	40	45	50	55	60	65	70

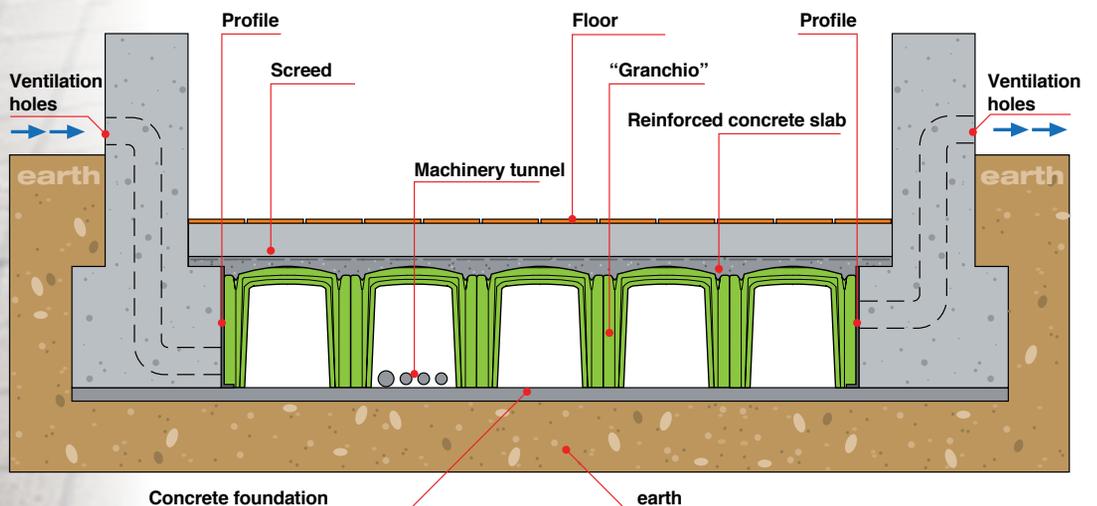


USAGE IN RAISING FLOORS



USAGE IN ATTICS

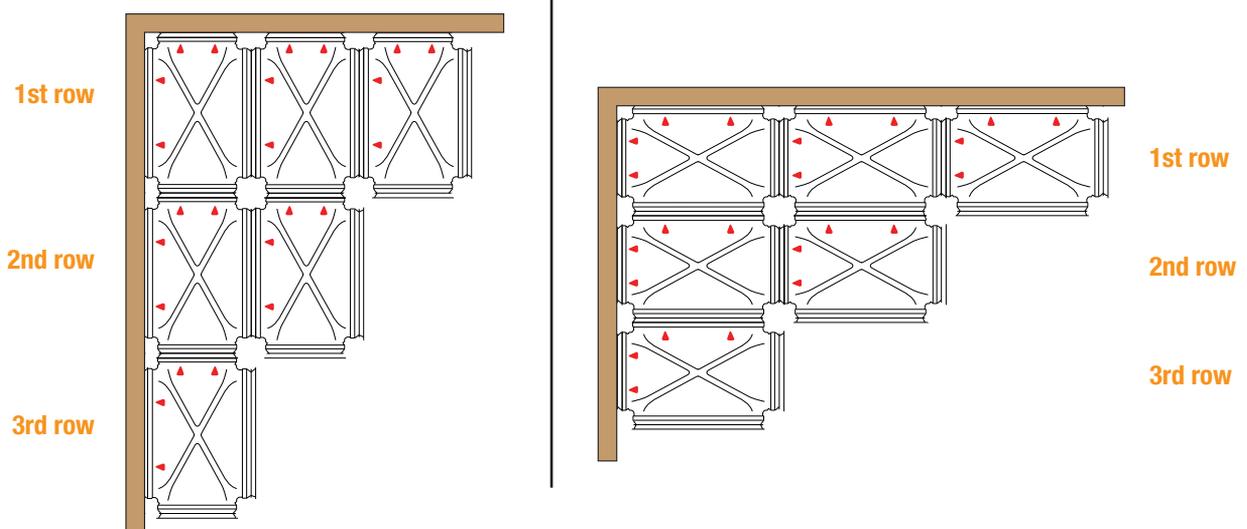
USAGE IN VENTILATED CRAWL SPACES



The proven system to create ventilated crawl spaces

Model	Working dimensions	Consumption of concrete for filling	Supporting surface	Packaging	Packaging dimensions in m.
GRA 5	58x78x5h.	m ³ /m ² 0,009	cm ² /m ² 645	pz. 200 = m ² 90	1,20x0,80x2,14
GRA 10	58x78x10h.	m ³ /m ² 0,015	cm ² /m ² 580	pz. 160 = m ² 72	1,20x0,80x2,18
GRA 15	50x75x15h.	m ³ /m ² 0,030	cm ² /m ² 547	pz. 100 = m ² 37,50	1,05x0,77x2,00
GRA 20	50x75x20h.	m ³ /m ² 0,035	cm ² /m ² 453	pz. 100 = m ² 37,50	1,05x0,77x2,05
GRA 25	50x75x25h.	m ³ /m ² 0,040	cm ² /m ² 599	pz. 100 = m ² 37,50	1,05x0,77x2,15
GRA 30	50x75x30h.	m ³ /m ² 0,045	cm ² /m ² 474	pz. 100 = m ² 37,50	1,05x0,77x2,20
GRA 35	50x75x35h.	m ³ /m ² 0,050	cm ² /m ² 495	pz. 100 = m ² 37,50	1,05x0,77x2,25
GRA 40	50x75x40h.	m ³ /m ² 0,055	cm ² /m ² 439	pz. 100 = m ² 37,50	1,05x0,77x2,30
GRA 45	50x75x45h.	m ³ /m ² 0,062	cm ² /m ² 405	pz. 100 = m ² 37,50	1,05x0,77x2,35
GRA 50	50x75x50h.	m ³ /m ² 0,065	cm ² /m ² 371	pz. 90 = m ² 33,75	1,05x0,77x2,20
GRA 55	50x75x55h.	m ³ /m ² 0,070	cm ² /m ² 337	pz. 90 = m ² 33,75	1,05x0,77x2,30
GRA 60*	50x75x60h.	m ³ /m ² 0,085	cm ² /m ² 490	pz. 80 = m ² 30	1,05x0,77x2,10
GRA 65*	50x75x65h.	m ³ /m ² 0,090	cm ² /m ² 426	pz. 80 = m ² 30	1,05x0,77x2,20
GRA 70*	50x75x70h.	m ³ /m ² 0,095	cm ² /m ² 373	pz. 80 = m ² 30	1,05x0,77x2,25

LAYING DIAGRAM



DESCRIPTION OF WORKS

- RcK 150 concrete must be used for lean concrete casting with a thickness of cm. ... for forming the laying level of the formwork called «GRANCHIO».
- To loads of more than Kg. / m² 4000 and / or for construction in seismic areas the foundations must be made from RcK 150 with welded mesh Ø 6 10x10.
- Supply and dry laying on the floor made from rectangular plastic formwork type GRANCHIO» H. cm. The installation will be carried out following the arrow indicators.
- Supply and installation of plastic angular profile as required, with development cm. Measures to prevent the overflow of concrete during casting.
- Supply and installation of reinforcement consisting of welded mesh Ø6 20x20.
- Supply and installation of concrete RcK 250 to fill the «GRANCHIO» and formation of slab with thickness of cm.

NB: When a floor is made with finished casting, the concrete should be cast in two phases: the first for filling of the legs and the second for making the flooring slab.

After this, the "EXPANSION JOINTS" should be made, with a centre to centre distance of about mt. 4x4

The "granchio" may exhibit marked variations in colour due to the use of recycled plastics.



24050 Mornico Al Serio (BG) - I - Via Fornace
Tel. +39 035 4490440 - Fax +39 035 4490752

www.projectforbuilding.com - info@projectforbuilding.com

