



Sustainable Building Solutions

TECHNICAL CATALOGUE

Vers. July 2023



*Dedicated to those working
for a better world.*

The talent of individuals and the strength of the team



Sustainable Building Materials

BACCHI S.p.A.
with head office in Boretto (RE) is the leading company of the Group, which has always been committed to product development and respect for the environment. Today it offers a range of building solutions that is unrivalled in terms of breadth and quality.



Innovative building systems

EKORU S.r.l.
with head office in Volla (NA). Manufacturer of GASBETON, the most important Italian aerated concrete brand. It has a strong innovative spirit and aims to make great strides in the construction industry.



Special Sands and
Synthetic field recovery

Sabbie di Parma S.r.l
with head offices in Polesine Zibello (PR) and Cona (VE). The company has revolutionised the world of sports sands and the recycling of artificial turf fields. It also produces special sands for construction and industry.



Transport and Logistics

BASE S.r.l.
with head office in Bologna (BO) and specialising in transport and logistics, connects the group's various depots, enabling nationwide distribution of solutions.

Commitment:



4
Production
facilities



7%
of turnover
invested in R&D



+800
References
distributed



www.bacchispa.it
www.gasbeton.it
www.sabbiediparma.com

The BACCHI brand is synonymous with environmentally friendly materials for higher value construction



We specialise in the development, production and distribution of building materials and green areas with the aim of helping to build a better future by providing sustainable solutions that respect the environment and people. Our roots have been in the Po River since the early 1900s, and it is from the river that we derive a



substantial part of the natural raw materials we use to make many products.

Our historical headquarters are in Boretto (RE), but the company has now branched out nationwide, also thanks to the other BACCHI Group companies which share our fundamental values and complete the range of solutions to build a better future.



Quality and Respect

Guaranteeing product quality to ensure customer satisfaction, controlling the environmental impact to improve the sustainability of our business, and ensuring the safety of our people are fundamental activities that we carry out unceasingly. To maximise our efforts in this regard, we have obtained several important certifications, dedicating specific skills and resources to maintaining and updating them:

ISO 9001:2015 - Corporate Quality System

ISO 14001:2015 - Environmental Management System

ISO 45001:2018 - Occupational Health and Safety Management System

CE 131-CPR-048 - Control of the production process from production to sale

Organisational, Management and Control Model Code of Ethics ex Legislative Decree No. 231/2001

WhiteList: Company Impervious to Organised Crime
Anti-Mafia Code of Conduct.

Constant improvement

*"Our choice to offer **green building solutions** is becoming more and more successful on the market and is increasingly shared by construction professionals.*

This makes us proud of our values and gives us the strength to continue investing in the development of sustainable solutions that help build a better future."

Claudio Bacchi
General Manager BACCHI S.p.A.



Services for Construction Professionals

Our technical department is always available to provide the required support from the design phase to the construction site, either in person or with digital tools.

- Technical training on products
- Dedicated support and consulting
- Project estimates and economic calculations
- Thermal stratification calculations and condensation checks
- Analytical checks of finite element thermal bridges
- Hygrometric simulations in variable regime for internal insulation
- Advanced design tools (BIM libraries, DWG and PDF drawings and construction details, manuals and design guides)
- Support during the site opening phase
- Training of workers on correct laying methods
- Videos and instruction manuals always available
- Construction site equipment rental (and sales) services

We suggest you visit our websites:



www.bacchispa.it



www.gasbeton.it

There you will always find:

- images
- installation videos
- technical data sheets
- instructions
- design files
- and much more documentation

From our sites you can also

book an appointment with our technicians for a dedicated consultation and, if needed, you can always write to

supportotecnico@bacchispa.it



AERATED CONCRETE
CONSTRUCTION SYSTEM

GASBETON®



PAGE 10

CELLULAR GLASS
INSULATION

GLAPOR

B:GLAS®



PAGE 38

CALCIUM SILICATE
INSULATION

**B:SANA B:ISOLA
B:TERMO**



PAGE 54

WET SANDS AND
AGGREGATES

BACCHI



PAGE 68

DRIED SANDS AND
SPECIAL SANDS

BACCHI



PAGE 70

MORTARS, SCREEDS AND
CONCRETES

BACCHI



PAGE 71

OUTDOOR PAVING PRODUCTS

BACCHI



PAGE 74

PRODUCTS FOR GREEN
AREAS AND GARDENS

BACCHI



PAGE 77

New buildings

1

Natural aggregates



Sands, gravels, stabilised mixtures, cast mixtures, crushed stones

2

Concretes



Structural castings and underfloors

3

BGLAS cellular glass granulate



Anti-capillary foundation insulation

4

GASBETON® ACTIVE



Highly insulating masonry

5

GASBETON® IDRO



Masonry protection against rising damp

6

GASBETON® EVOLUTION

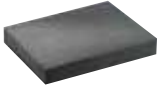


Interior and fire-resistant walls



7

Cellular glass insulating panels GLAPOR



Waterproof insulation for roofs, foundations and walls against the ground

8

B/TERMO Calcium silicate insulation



Thermal bridge insulation with mineral panel

9

GASBETON® lintels



Quick creation of openings

10

GASBETON® mortars



GASBETON® wall bonding and finishing

11

Soils and Aggregates



Draining underfloors and green areas

12

Ornamental cobblestones



For flowerbeds, pathways and outdoor area decoration




Renovations and redevelopment

- 1**
B/ISOLA
Calcium silicate
insulation

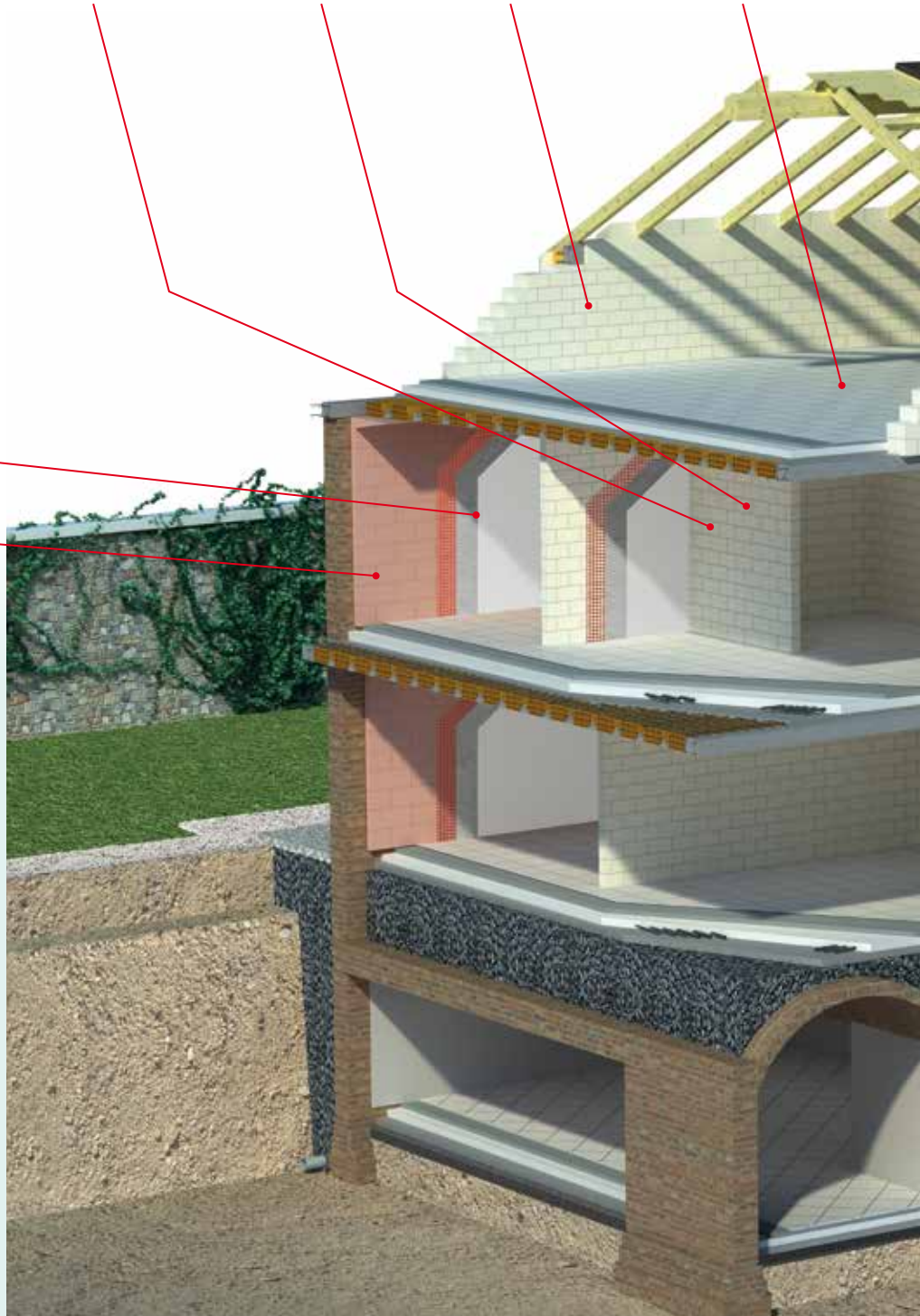
Breathable, natural
interior insulation
- 2**
BIOKOLL and BIOFINE
Glues-Sealers and
breathable finishes

Laying and
finishing of mineral
insulating materials
indoors
- 3**
GASBETON®
EVOLUTION

Interior and
fire-resistant walls
- 4**
GASBETON®
mortars

GASBETON®
wall bonding and
finishing
- 5**
GASBETON®
SYSMIC

Overhangs in
load-bearing
and lightweight
masonry
- 6**
Concretes
and **Screeds**

Structural castings,
underfloors and
screeds

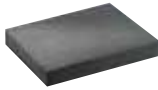


7
**GASBETON®
SPECIAL PIECES**



In situ reinforced concrete lintels, pillars and kerbs

8
**Cellular glass insulating panels
GLAPOR**



Floor and roof insulation and waterproofing

9
**B/TERMO
Calcium silicate
insulation**



Breathable, durable outer insulation cladding

10
Paving sands



Dry pavement infill

11
**BGLAS cellular
glass granulate**

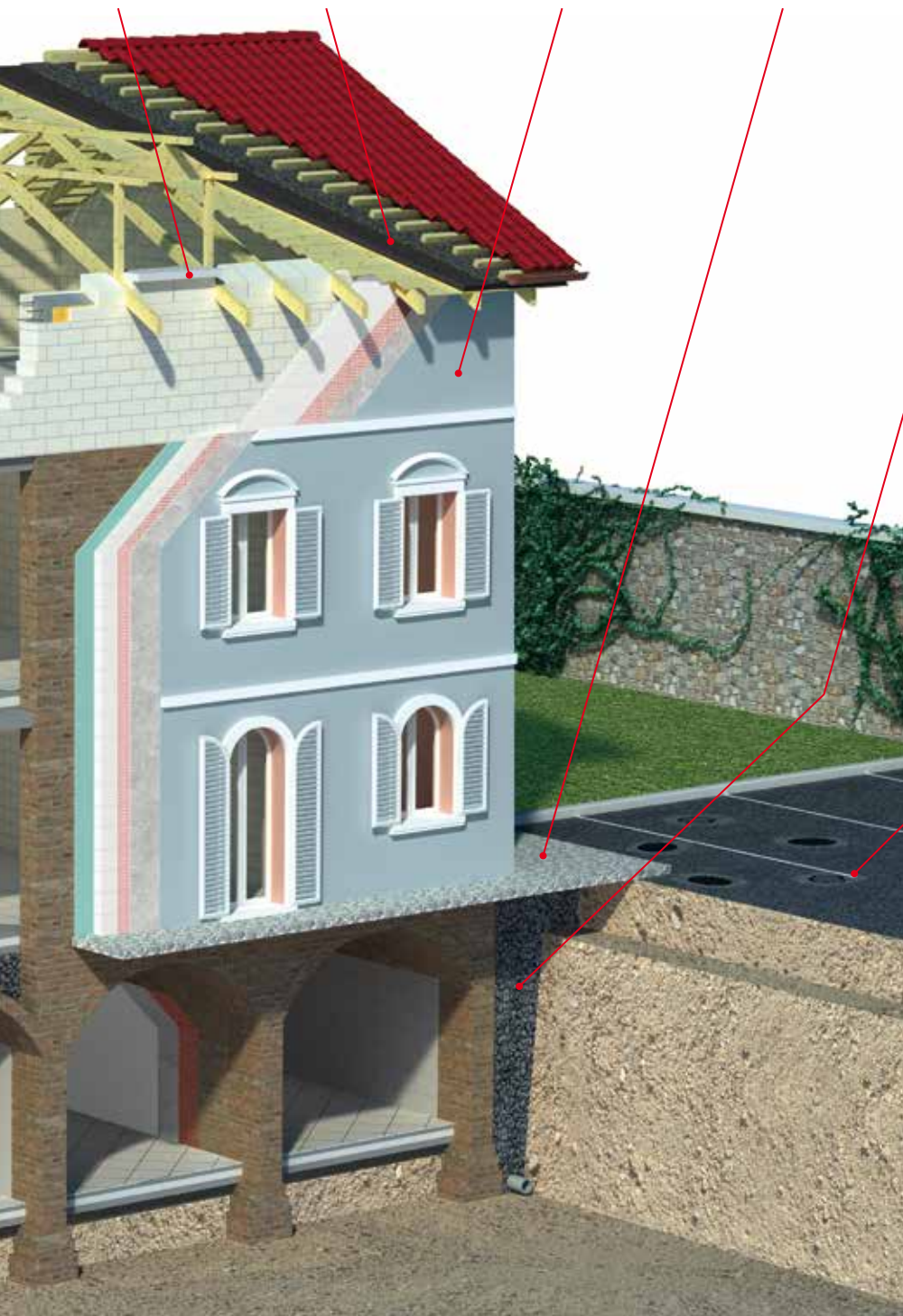


Underfloor insulation and vault lightening

12
**FIXXAR
cold asphalt**



Fast and durable road surface restoration



Why choose GASBETON®?:

Naturally Environmentally Friendly

Product with:

- 🌿 **Natural origin raw materials**
- 🌿 **Resource-efficient processes**
- 🌿 **Partly recycled materials**

It's the smartest solution for building because it:

- 👍 **Is lightweight and insulating**
- 👍 **Is solid and versatile for infinite uses in construction**
- 👍 **Reduces consumption and polluting emissions**
- 👍 **Creates healthy and comfortable environments**
- 👍 **Is totally recyclable at the end of its life**

A Commitment to the Future, a New Construction

GASBETON® is produced by EKORU, a company with its home office in Volla (NA) that covers an area of more than 56,000 square metres and represents one of the hubs of research and development of the BACCHI Group, to which it belongs.

Proposing environmentally friendly building systems capable of reducing energy consumption and guaranteeing people's well-being is the BACCHI Group's commitment, in order to promote a new, more responsible and sustainable construction industry.



Ecology, Well-being and Energy Saving

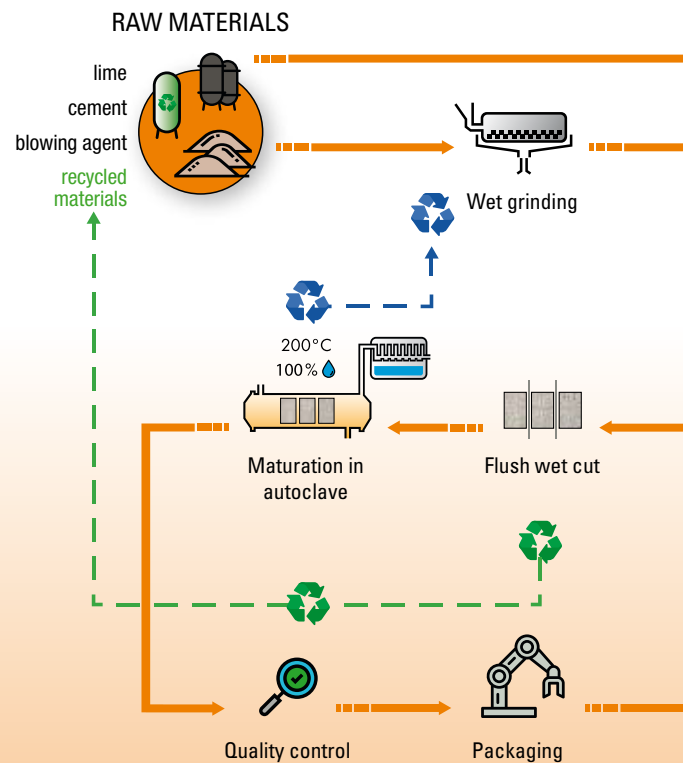
Thanks to its excellent performance in terms of safety, thermal insulation and environmental sustainability, GASBETON® is the symbol of this new construction, allowing us to build a better future.

Made in Italy, Guaranteed and Certified.

GASBETON® is entirely produced in Italy, investing in a unique territory and thanks to the skills of people who work every day to contribute to the evolution of construction methods. GASBETON® quality is certified in several aspects, from performance to ecology.

GASB

The production process



✓ MAXIMUM EFFICIENCY AND SUSTAINABILITY THROUGH RAW MATERIAL RECOVERY



THE INTERNATIONAL EPD® SYSTEM

GASBETON® has an Environmental Product Declaration certifying its sustainability.

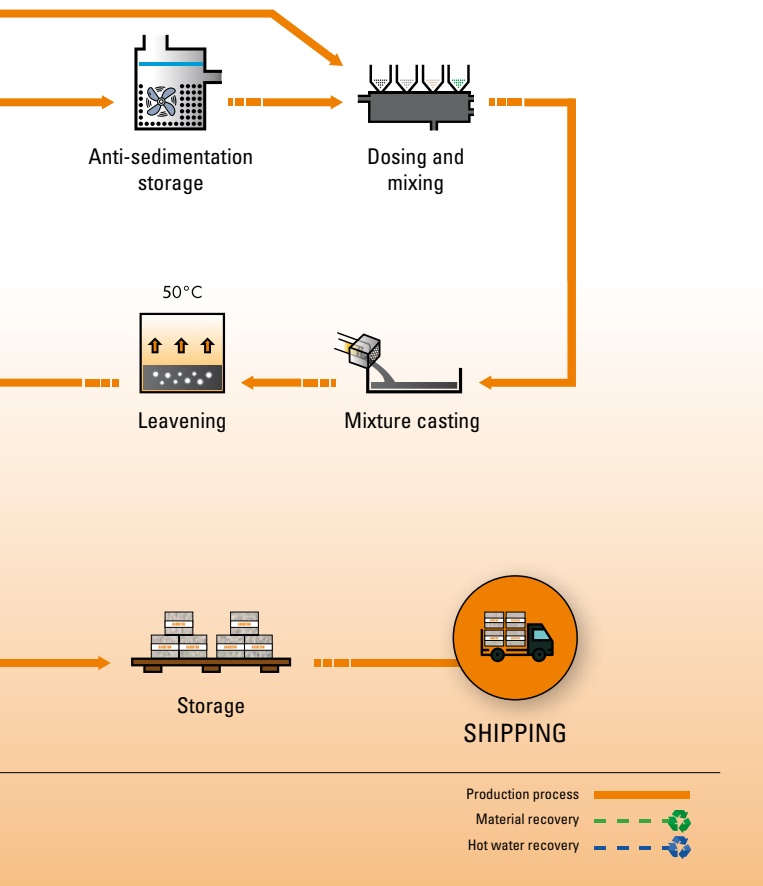
Available at www.gasbeton.it/download



10% recycled content

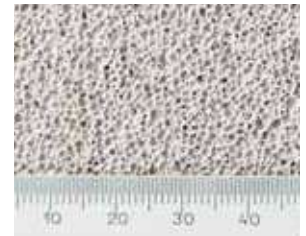
ETON®

Quality and environmental sustainability



Historically innovative

First produced in Sweden in 1923 to address the shortage of wood and overcome its limitations in the construction industry, Autoclaved Aerated Concrete (AAC) soon became the ideal material for simple, efficient building systems.



Thanks to its light weight, strength, workability, insulation and sustainability, it fits perfectly with the demands of modern construction.

GASBETON® is like a well-risen cake, composed of a few natural resources such as water, sand, lime, cement and a pinch of "yeast".

Together these components account for 80% of the elements in the earth's crust.

... working towards zero-energy building!



Features of the material:



THERMAL INSULATOR



THERMAL INERTIA

Walls in GASBETON® help reduce energy costs to maintain an optimal temperature in your home in all seasons and in all climates.

The high thermal insulation values make GASBETON® an excellent material for building the envelope of buildings with low energy consumption without any need to add further insulating materials to the masonry.

At the same time, thanks to the combined effect of the thermal accumulation capacity and thermal resistance, it offers excellent thermal inertia values which makes it an excellent insulator even in summer.



FIRE RESISTANT

GASBETON® is one of the most suitable materials for fire walls as it is **totally non-combustible** (Euroclass A1, the best fire reaction class).*



LIGHTWEIGHT

The light weight allows larger blocks to be laid in **less time** and improves the response of the building structure in the event of an earthquake.



BREATHABLE

Breathability and vapour permeability make it possible to **create healthy and comfortable environments**, allowing excess moisture and vapour to migrate outside.



DURABLE



ANTI SEISMIC

GASBETON® blocks combine light weight with **high load-bearing capacity and energy dissipation capacity**. In addition, the precision of the masonry allows better functionality under load, the light weight limits inertial forces and the honeycomb structure allows earthquake energy to be dampened.



ENVIRONMENTALLY FRIENDLY



RECYCLABLE

GASBETON® is environmentally friendly thanks to the use of few natural raw materials and efficient, waste-free production processes. Moreover, it is a recyclable material, avoiding the production of waste.



SOUNDPROOF

GASBETON® is an excellent acoustic insulator thanks to its porous structure which dissipates incident sound waves. Furthermore, the "thin joint" installation in situ reduces acoustic bridges between the blocks.



HEALTHINESS

The healthiness of GASBETON® is attested by numerous tests and certifications. GASBETON® does not emit any harmful substances.



EASY TO PROCESS



FAST LAYING

Its high workability makes it easier and quicker to lay and create plant tracks. In addition, the dimensional accuracy of the blocks and the thin joint bonding allow for extremely precise walls, using minimal amounts of glues and plaster.



* Fire resistance tests were carried out on walls made with plain blocks and bonded vertical joints.

The resulting benefits:

For builders



Time Savings



- Faster laying of masonry
- Faster installation of plant tracks
- No need to add additional insulation (cladding)

Material Savings



- Minimised material waste
- No additional insulation on masonry
- Reduced consumption of plaster and mortar

Construction Value



- Maximum performance durability
- High construction and finishing precision
- Solid, safe structure

Reliable Partner



- One point of contact for the supply of numerous materials
- Secure reference for assistance in the planning and implementation phase

For the inhabitants



Lower Management Costs



- Savings on utility bills
- No insulation material maintenance/replacement

Increased Property Value



- For high energy performance that lasts over time
- For construction quality comfort and safety offered

Increased Safety and Well-being

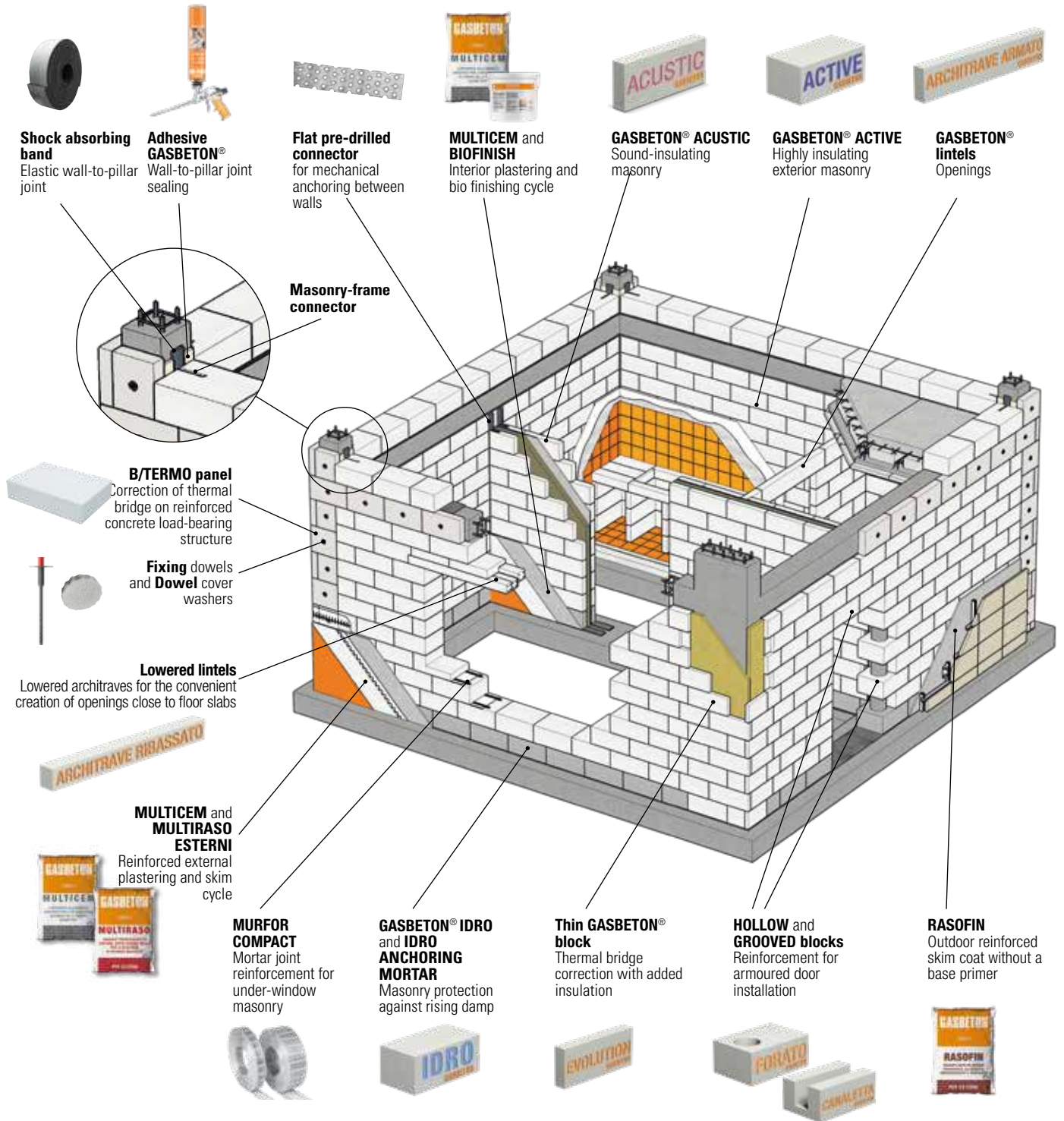


- Fire protection
- Earthquake resistance
- Healthier environments

Choose the original!

A versatile system that adapts to all project and construction requirements.

For buildings with a load-bearing frame structure, the best solution for highly insulating curtain walling



Suitable for housing of all shapes and sizes, as well as public buildings, commercial premises and more.

For load-bearing masonry construction, the best system to combine solidity, light weight and insulation

GASBETON® SYSMIC for the construction of load-bearing masonry even in highly seismic zones

GROOVED block for the construction of reinforced load-bearing lintels in situ, including of considerable length

INCOLLARASA M5 and MULTIRASO INTERNI skim coat and finishing cycles for interiors

Thin EVOLUTION block for the construction of interior shelving or other masonry furniture

GASBETON® ADHESIVE for rapid construction of interior walls and furnishings in GASBETON®

LOAD-BEARING REINFORCED LINTELS for rapid construction of openings in load-bearing walls

THIN REINFORCED LINTELS for the construction of openings in non-load-bearing partition walls

FLAT PRE-DRILLED CONNECTOR for mechanical anchoring between walls

B/TERMO panel for additional thermal insulation in cold climates

Poppet dowel for insulation cladding for fixing insulating panels to masonry

MYKOLL and MESH for outdoor reinforced skim coat with certified mesh

SYSMIC HOLLOW block for the construction of reinforced pillars inside load-bearing masonry

MURFOR EFS/Z for reinforcing under sill mortar joints

IDRO and IDRO BLOCK ANCHORING MORTAR for protecting masonry against rising damp

MALTACOLLA M10 RS Reinforced skim coat for cladding substrate

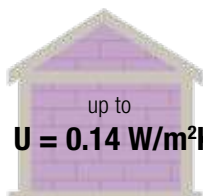
Safety restraint hook for cladding

Different solutions for density, insulation and strength.

HIGHLY INSULATING CURTAIN WALLING



BLOCKS THAT MAXIMISE THERMAL INSULATION IN BOTH WINTER AND SUMMER FOR **PASSIVE AND NZEB BUILDING MASONRY**

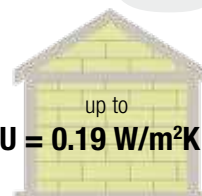


up to
U = 0.14 W/m²K **

DOES NOT REQUIRE ADDITIONAL THERMAL INSULATION CLADDING



BLOCKS THAT OPTIMISE THERMAL AND ACOUSTIC INSULATION PERFORMANCE FOR **SINGLE-LAYER CURTAIN WALLS**



up to
U = 0.19 W/m²K **

DOES NOT REQUIRE ADDITIONAL THERMAL INSULATION CLADDING

Technical features	Unit of measure	ACTIVE						ENERGY					
Dry density	kg/m³	300						350					
Basic thermal conductivity λ _{10, dry} measured * <small>(Cert. Polytechnic University of Bari - ISO 8302 - UNI EN 12667)</small>	W/mK	0.070						0.080					
Useful thermal conductivity λ **	W/mK	0.073						0.084					
Water vapour resistance factor μ	-	10 (in dry field) 5 (in wet field)						10 (in dry field) 5 (in wet field)					
Specific heat c	kJ/kgK	1.0						1.0					
Thickness	mm	300	350	375	400	450	500	240	300	350	375	400	
Stationary thermal transmittance U**	W/m²K	0.22	0.19	0.18	0.17	0.15	0.14	0.32	0.26	0.22	0.21	0.19	
Periodic transmittance modulus Y _{IE} ** <small>(maximum value 0.10 W/m²K ref. DM 26/06/2015)</small>	W/m²K	0.050	0.027	0.020	0.014	0.008	0.004	0.117	0.055	0.029	0.021	0.016	
Thermal inertia	Displacement S**	hours	11h 49'	14h 12'	15h 24'	16h 35'	18h 58'	21h 22'	9h 9'	12h 3'	14h 27'	15h 39'	16h 52'
	Mitigation f _a **	-	0.225	0.140	0.109	0.085	0.051	0.030	0.370	0.215	0.132	0.103	0.080
Sound insulating power R_w ***	dB	46	47	48	49	50	51	45	47	49	49	50	
Fire resistance rating <small>(Non-plastered walls and smooth blocks)</small>		EI 240						EI 240					

Note: * to be used only for thermal bridge correction, not for masonry, by bonding to the substrate and dowelling.

** Non-binding indicative values It will be the designer's task to determine all the necessary parameters (based on the performance declared in the D.o.P.) in order to assess the suitability of t

*** values calculated with specific mass law for aerated autoclaved concrete, referring to walls plastered with MULTICEM 1.5 cm thick on both faces

LOAD-BEARING WALLS, FIRE-RESISTANT WALLS, SOUND-INSULATING PARTITIONS



EVOLUTION
480 Kg/m³
0.11 W/mK

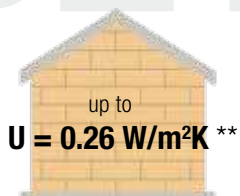


SYSMIC
580 Kg/m³
0.13 W/mK

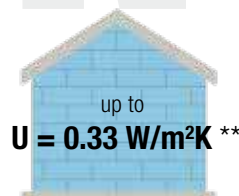


ACUSTIC
630 Kg/m³
0.16 W/mK

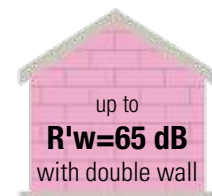
BLOCKS SUITABLE FOR FIRE-RESISTANT INTERNAL PARTITIONS AND FOR EXTERNAL **LOAD-BEARING MASONRY IN LOW SEISMIC ZONES**



BLOCKS WITH A LOAD-BEARING CAPACITY OF MORE THAN 50 Kg/cm² SPECIFICALLY DESIGNED FOR **LOAD-BEARING WALLS IN SEISMIC ZONES**



BLOCKS THAT MAXIMISE **INSULATION BETWEEN NEIGHBOURING ENVIRONMENTS**



EVOLUTION										SYSMIC		ACUSTIC		
480										580		630		
0.110										0.130		0.156		
0.116										0.136		0.136		
10 (in dry field) 5 (in wet field)										10 (in dry field) 5 (in wet field)		10 (in dry field) 5 (in wet field)		
1.0										1.0		1.0		
50	80	100	120	150	200	240	300	350	400	240	300	80	100	120
1.60	1.11	0.93	0.79	0.65	0.50	0.43	0.35	0.30	0.26	0.50	0.40	1.47	1.23	1.07
1.584	1.602	0.839	0.666	0.467	0.251	0.151	0.071	0.038	0.020	0.167	0.078	1.388	1.109	0.887
0h 50'	1h 49'	2h 37'	3h 31'	4h 57'	7h 23'	9h 20'	12h 13'	14h 37'	17h 1'	9h 35'	12h 30'	1h 52'	2h 40'	3h 32'
0.989	0.953	0.906	0.840	0.715	0.499	0.356	0.206	0.127	0.077	0.337	0.193	0.948	0.899	0.833
35	38	40	41	43	46	48	50	52	53	50	52	40	42	44
-	EI 120	EI 240				REI 180 EI 240	REI 240 EI 240			REI 180 EI 240	REI 240 EI 240	EI 60	EI 60	

System components: **blocks, special pieces and insulating panels**

Blocks for highly insulating non-load-bearing masonry

ACTIVE Blocks thick. 30 to 50 cm available interlocking
Bricks thick. 5 cm



Blocks for load-bearing and insulating masonry

EVOLUTION Thicknesses from 24 to 40 cm available interlocking and smooth



ENERGY Blocks with from 24 to 40 cm thick. available interlocking
Bricks thick. 10 cm



SYSMIC Thicknesses from 24 to 30 cm available smooth



Thin blocks for interior walls and partitions

EVOLUTION Thicknesses from 5 to 20 cm available interlocking and smooth



Blocks for sound-insulating walls between neighbouring environments

ACUSTIC Thicknesses from 8 to 12 cm available smooth



IDRO blocks for thermal bridge correction and rising damp

EVOLUTION Thicknesses from 8 to 50 cm available smooth



SYSMIC Thicknesses from 24 to 40 cm available smooth



Standard block dimensions: length 60 cm - height 25 cm

Hollow blocks for reinforced vertical stiffening in situ



Thicknesses from 20 to 35 cm available smooth



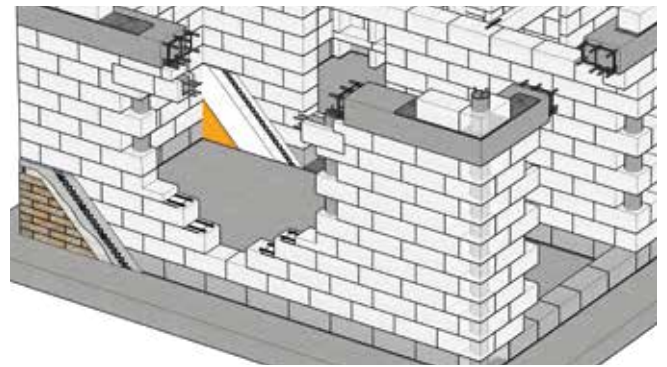
Grooved blocks for horizontal stiffening and vaults made in situ



Thicknesses from 20 to 45 cm available smooth



Thicknesses from 24 to 30 cm available smooth



Reinforced lintels for masonry NON-LOAD-BEARING



Thin h 25 cm
Thicknesses from 7.5 to 10 cm
Length from 125 to 250 cm



Lowered h 12.4 cm
Thicknesses from 11.5 to 15 cm
Length from 150 to 300 cm

Reinforced lintels for masonry LOAD-BEARING



Thicknesses from 20 to 30 cm
Length from 130 to 300 cm

External insulation of thermal bridges



Thicknesses from 5 to 20 cm
Panel dimensions 60x38 cm



Block characteristics

GASBETON® ACTIVE

Blocks that maximise thermal insulation in both winter and summer, for **passive and nzeb building masonry**.



Maximum insulation all year round. Without insulation cladding.

Uses and benefits

Thanks to an excellent thermal conductivity value when dry, GASBETON® ACTIVE blocks offer **the best thermal insulation performance** in the single-layer masonry market to date, **without the need for additional insulation cladding**.

For this reason, ACTIVE blocks are suitable for the construction of **non-load-bearing masonry in Nzeb and passive buildings with a load-bearing frame structure** (in concrete, steel, wood or other materials).

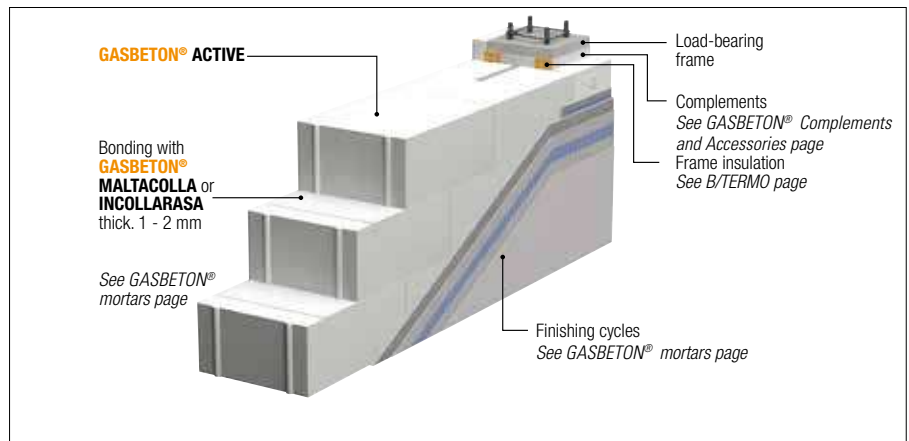


Characteristics:

ACTIVE

d=300 Kg/m³

λ=0.07 W/mK



GASBETON® ENERGY

Blocks that optimise thermal and acoustic insulation performance for **single-layer curtain walls**.

This block offers greater acoustic insulation and a higher bond strength. It is recommended in cases of bonded cladding, ventilated façades and other applications requiring higher tear resistance.



Characteristics:

ENERGY

d=350 Kg/m³

λ=0.08 W/mK

Forget insulation cladding!
GASBETON infills are already highly insulating as well as breathable and fire resistant!



GASBETON® EVOLUTION

The block is suitable for internal partitions and large **fire-resistant masonry** and for **load-bearing external masonry in low seismic zones**. Large walls can be constructed in combination with hollow and grooved blocks, for reinforced stiffeners. The use of kerbs is recommended for walls higher than 4 metres.



Characteristics:

EVOLUTION

d=480 Kg/m³

λ=0.11 W/mK



- Large industrial masonry
- Fire-resistant walls
- Civil and commercial partitioning



GASBETON® SYSMIC

Blocks with a load-bearing capacity of more than 50 kg/cm², specifically designed for **load-bearing walls in seismic zones**. Ideal for extensions and additions thanks to the ideal combination of strength, light weight and thermal insulation. We recommend laying SYSMIC blocks with 3 mm thick joints to be made with MALTACOLLA M10 RS.



Characteristics:

SYSMIC

d=580 Kg/m³

λ=0.13 W/mK

Structural strength, light weight and honeycomb structure make Gasbeton® Sysmic extremely resistant to seismic events



Block characteristics

GASBETON® ACUSTIC

are masonry blocks specially designed to offer **the highest degree of airborne sound insulation ever achieved with autoclaved aerated concrete**. This is possible due to the high density of GASBETON® ACUSTIC: 630 kg/m³.

GASBETON® ACUSTIC is especially appreciated because, **in addition to its soundproofing capabilities, it retains all the benefits of GASBETON®**: rapid installation, fire resistance, thermal insulation, certified healthiness and environmental sustainability.

ACUSTIC blocks are used to build double walls with gap insulation between neighbouring dwellings, between classrooms, offices and any other building where high levels of noise reduction and internal sound comfort are required. It is however also used to build single or single-layer walls between rooms in the same dwelling to reduce noise transmission. In fact, use of ACUSTIC blocks guarantees an increase in average R'w of 2-3 dB compared to an equivalent thickness of classic GASBETON® blocks for partitioning, which is significant for very thin masonry (8-12 cm).



Characteristics:

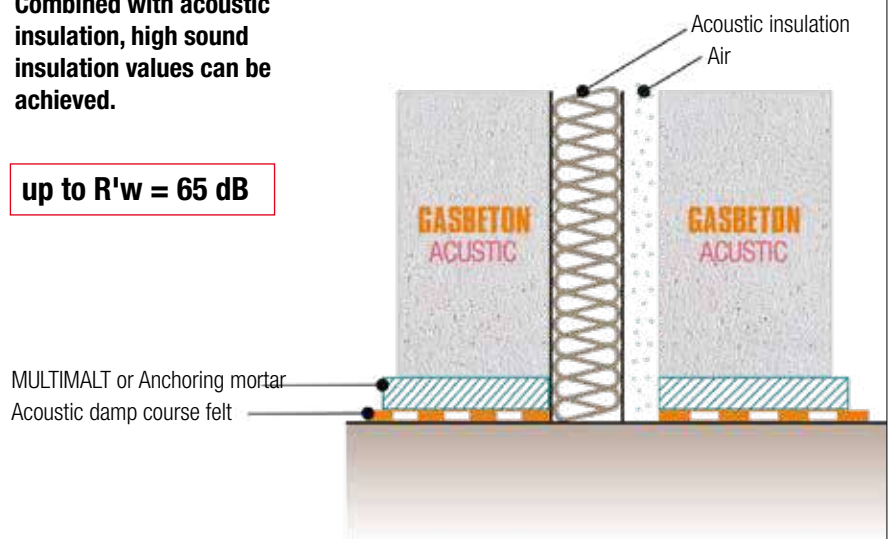
ACUSTIC

d=630 Kg/m³

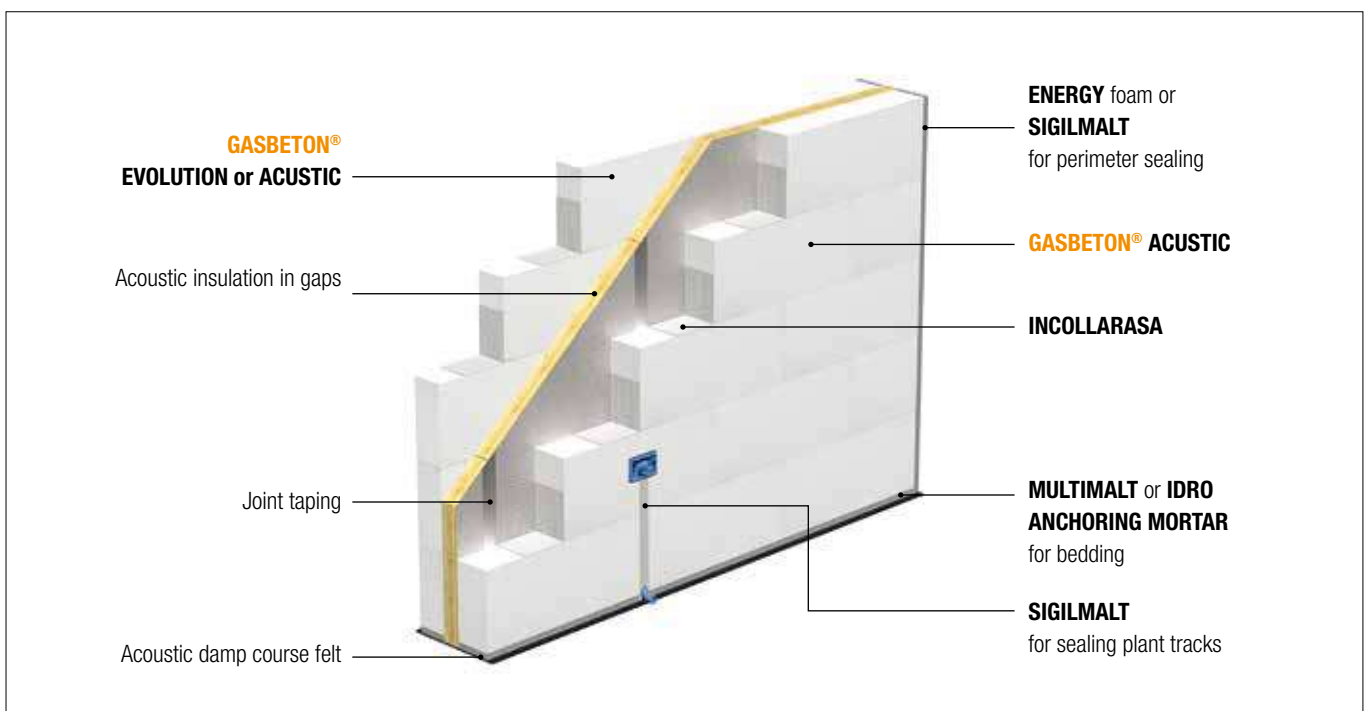
λ=0.16 W/mK

Combined with acoustic insulation, high sound insulation values can be achieved.

up to R'w = 65 dB



Download the **guide to sound insulation with GASBETON®** at www.gasbeton.it/download



GASBETON® IDRO

for thermal bridge correction and rising damp

GASBETON® IDRO EVOLUTION

Thermal break and waterproofing at the foot of NON-load-bearing masonry in GASBETON® or bricks.

Characteristics:

d=480 Kg/m³
λ=0.11 W/mK

EVOLUTION

GASBETON® IDRO SYSMIC

Thermal break and waterproofing at the foot of LOAD-BEARING masonry in GASBETON® or bricks.

Characteristics:

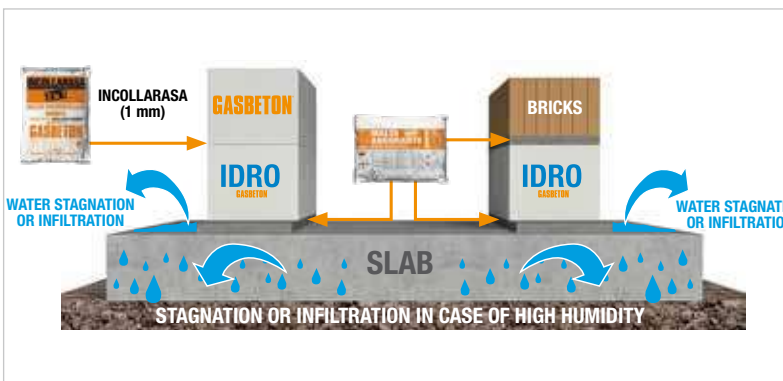
d=580 Kg/m³
λ=0.13 W/mK

SYSMIC



From the functional need to **reduce thermal bridges** at the base of traditional masonry and, at the same time, **the transmission of any rising damp, comes the new Block IDRO.**

In addition to its excellent thermal insulating power and high compressive strength, this product offers much lower absorption values than standard blocks thanks to the use of special water-repellent agents evenly distributed throughout the entire volume of the block.



Application:

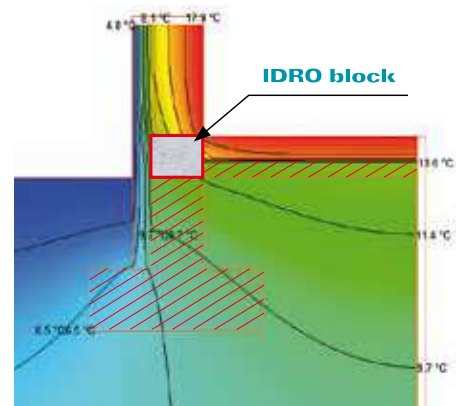
IDRO blocks must be **bedded on** a suitable layer of **IDRO ANCHORING MORTAR**. To lay subsequent GASBETON® blocks, use the specific GASBETON® Incollarasa. In the case of bricks, use cement mortar for traditional masonry. If several vertical courses of IDRO Block are foreseen, it is necessary to glue them with INCOLLARASA GASBETON® using a special notched trowel, taking care to offset the vertical joints.

Fields of use:

IDRO blocks are ideal for the **construction of the first course of bricks at the base of traditional masonry and in GASBETON®** in order to inhibit moisture and, at the same time, reduce linear thermal bridges. It is suitable **both for internal partitions and external walls**, including load-bearing in seismic zones. It is useful in basements, ground floors and in all areas where there are balconies or terraces with a danger of water stagnation.

Product preparation:

IDRO blocks are delivered ready-to-use on pallets. They do not lose their protection even if cut.



Description	Unit of measure	Technical features			
		IDRO EVOLUTION		IDRO SYSMIC	
Density ρ dry	kg/m ³	480		580	
Compressive strength f_{bk}	N/mm ²	≥ 2.6 Cat. I		≥ 5 Cat. I	
Shear strength f_{vko}	N/mm ²	0.10		0.30	
Thermal conductivity $\lambda_{10, dry}$	W/mK	0.110		0.130	
Dimensions L x H	cm	60 x 25		60 x 25	

Available thicknesses IDRO EVOLUTION	cm	8	10	12	15	20	24	30	35	37.5	40	45	50
Available thicknesses IDRO SYSMIC	cm	-	-	-	-	-	24	30	35	-	40	-	-

System components: Mortars, glues and adhesives

The range of GASBETON® mortars and their application cycles have been specially developed for aerated concrete masonry. The specific product formulations guarantee excellent adhesion to the substrate, high strength and durability over time. The attention paid to breathability characteristics makes it possible to maximise the healthy qualities offered by GASBETON® masonry.



INCOLLARASA M5 GASBETON® glue and skim coat for the laying and smoothing reinforced masonry

Premixed powder mortar for indoor and outdoor use, with calibrated water retention, hydraulic binder-based, specific for the thin joint bonding of GASBETON® blocks and for their subsequent internal reinforced skim coat, to be applied by hand with a notched trowel. Indoors, it is the base for finishing with MULTIRASO INTERNI or for decoration (breathable paints or tiles).

Finished skim coat thick.: min. 3 mm, max. 6 mm.
Grain size: 0 - 0.6 mm. - Colour: white



Also in CAM Certified version



MALTACOLLA M10 RS Glue with high mechanical strength and high resistance to sulphates for the laying of GASBETON® blocks

Premixed powder mortar for indoor and outdoor masonry, with calibrated water retention, hydraulic binder-based with special additives that provide superior sulphate resistance, specific for the thin joint bonding of GASBETON® blocks, to be applied by hand with a notched trowel. Joint thick.: 1-3 mm
Grain size: 0- 0.6 mm – Colour: white



Also in CAM Certified version



MULTIRASO INTERNI Skim coat for MULTICEM or INCOLLARASA internal finishing

Premixed powder mortar for indoor skim coat, with improved workability, aerial binder-based, specific for finishing base coats (MULTICEM plaster or INCOLLARASA reinforced skim coat) of GASBETON® masonry, to be applied by hand. The ideal primer for subsequent application of breathable paints. Thick. per coat: min. 1 mm, max. 2 mm. Finished skim coat thick. max. 3 mm. Grain size: 0 - 90 µ. Colour: white.



MULTIRASO ESTERNI Reinforced skim coat for exterior MULTICEM base plaster

Premixed powder mortar for outdoor skim coat, fibre-reinforced, water-repellent, hydrated lime and hydraulic binder-based, specific for finishing the base layer (MULTICEM plaster) of GASBETON® masonry. The ideal base for subsequent decorating using plaster finish or silicate or siloxane-based paints. Max. thick.: 2 mm per coat, 5 mm finished skim coat Grain size: 0 - 1.3 mm. Colour: light grey.



RASOFIN A unique outdoor skim coat that is breathable, lightweight, fibre-reinforced and water-repellent.

Premixed powder mortar for outdoor skim coat, breathable, lightweight, fibre-reinforced, water-repellent, hydrated lime and hydraulic binder-based, specific for GASBETON® reinforced masonry skim coat without a base primer, to be applied by hand or with plastering machine.

A base for subsequent decorating using plaster finish or silicate or siloxane-based paints. Skim coat thick.: 6-8 mm (minimum 5 mm).
Grain size: 0 - 1 mm. Colour: white



MULTICEM Lightweight plaster for the base plastering of GASBETON® masonry

Premixed powder mortar for base plasters, suitable for indoor and outdoor use, water-retaining, fibre-reinforced, water-repellent, low specific weight, hydrated lime-based, special hydraulic binders and light aggregates, specifically for application on GASBETON® masonry

Min. thick.: 1 cm internal, 1.5 cm external.
Grain size: 0 - 1.3 mm. Colour: grey.



MALTA ANCORANTE IDRO Water-repellent anchoring mortar for laying the first course of GASBETON® blocks.

M10, strongly water-repellent, pre-dosed mortar in two-compartment bags for indoor and outdoor use, siliceous sand-based with specific ARS binders and special additives, suitable for bedding the first course of load-bearing and non-load-bearing masonry, useful for limiting capillary ascending moisture without the use of waterproofing sheaths.
Layer thick.: 20 mm.



MULTIMALT Mortar for anchoring GASBETON® masonry to load-bearing structures

Premixed mortar M10 for indoor and outdoor use, grey colour, with calibrated water retention, hydraulic binder-based with siliceous sands, synthetic resins and special additives, designed for anchoring GASBETON® infills to the vertical load-bearing structures of buildings where there are no movement joints between masonry and pillars.
Joint thick.: 10-20 mm.



SIGILMALT Repair mortar for sealing plant tracks in GASBETON® masonry

Premixed, white-coloured, lightened mortar, ideal for sealing plant tracks in GASBETON masonry. Suitable for indoor and outdoor use and has a consistently high quality level. SIGILMALT is produced in an automated plant and is applied by hand. It also complies with the minimum environmental criteria (CAM) thanks to a recycled material content of 25%.



BIOFINISH Breathable and ecological lime-based BIO-finish for interiors

BIO-finish in paste form ready for use, composed of hydrated lime, special natural aggregates, natural fibres and water. It is ideal for creating breathable, healthy and ecological interior sponged finishes to complete GASBETON® plastering or skim coat masonry cycles
Max. thick.: 2 mm. Colour: white.
Grain size: ≤ 0.6 mm



Glues



New

BIOKOLL LIGHT Ecological glue and skim coat for mineral insulating panels and skim coat for GASBETON® internal walls

Premixed powder NHL natural hydraulic lime-based, selected light aggregates, reinforcement fibres and additives to improve workability and adhesion to the substrate. Suitable for carrying out reinforced internal skim coat on GASBETON® masonry with a particularly ecological, breathable and healthy product.

Skim coat thick.: 5mm.
Grain size < 1.25 mm
Colour: beige



MYKOLL Glue and skim coat for the application of B/THERMO mineral insulating panels.

B/THERMO is used to correct thermal bridges and for insulation cladding on GASBETON® SYSMIC masonry. MYKOLL is a premixed powder composed of cement, limestone aggregates, additives, resins and cellulose, suitable for bonding B/THERMO insulating panels made of calcium hydrate on reinforced concrete load-bearing structures and for carrying out rustic reinforced skim coat prior to the external plastering cycle.

Bonding-skim coat thick.: 3mm - 4mm
Grain size < 0.8 mm
Colour: white

GASBETON® RAPID ADHESIVE



FAST

Initial hardening 15 minutes



STRONG

500 Kg/dm² adhesion to concrete



EFFECTIVE

40-60 metre edge



CONSUMPTION

up to 12 sqm with one canister

Adhesive for laying aerated autoclaved concrete blocks, based on a special low-expanding single-component polyurethane foam formulated for thin-jointed masonry.

It low-pressure formulation ensures stability and prevents the deformation of masonry during and after work.

Characteristics:

- Extremely fast laying
- High site cleanliness
- Reduction of thermal bridges in joints
- Less site equipment
- Constant thickness of joints between blocks
- Quick grip in just 15 minutes



Fields of use:

- GASBETON® block laying
- Joint sealing between masonry and structures
- Bonding plasterboard and gypsum fibre sheets
- Bonding decorative elements, tiles and wooden thresholds.

Adhesion values on different substrates:

- Aerated autoclaved concrete blocks: max* (with 1 mm joint)
- Plasterboard Sheets: max* (with 1.5 mm joint)
- Concrete: > 500 KPa (with 1 mm joint)
- Wood: > 260 KPa (with 1.5 mm joint)
- Steel: > 130 KPa (with 1.5 mm joint)

* bonding resistance greater than the tear resistance of the substrate.

Applications:



(gun can be purchased separately)



GASBETON® block laying



Thin vertical/horizontal joint sealing

System components: **Accessories and equipment**

The right solutions to get the job done right.



For spreading adhesive mortar



New notched trowel for the correct laying of the blocks
A single trowel for all thicknesses



Notched scoop trowel from 5 to 40 cm block-sized

For shaping and cutting blocks to size



Bracket for manual cutting



Manual cutting saw



Electric reciprocating saw



Electric band saw



For lifting and positioning blocks



Handles for lifting blocks



For levelling blocks



Rubber mallet



For smoothing out any irregularities



Trowel for sanding and flattening



For creating plant tracks



Manual groove-cutting machine



Electric groove-cutting machine



For connecting walls to structures or each other

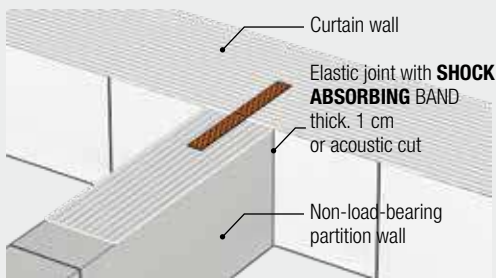


Flat pre-drilled connector for anchoring between orthogonal walls

New



Allows the mechanical connection between walls or between walls and load-bearing structures, ensuring maximum safety in the event of seismic events.



For creating elastic joints between walls and pillars



Shock absorbing band
Length = 300 cm
Width = 10 cm
Thick. = 1 or 2 cm

New



Allows the creation of an elastic joint between the load-bearing structure and curtain walls which is ideal for absorbing settlements and stresses while avoiding blemishes on walls.

For reinforcing masonry by reinforcing mortar joints

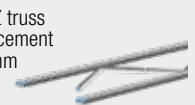


MURFOR COMPACT
Wire mesh tape for reinforcing joints
A40 (thick. 40 mm)
A80 (th. 80 mm)

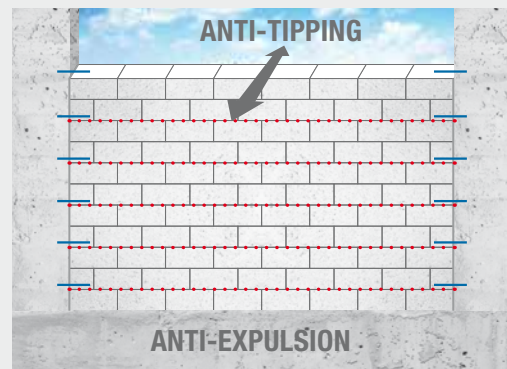
New



MURFOR EFS/Z truss for joint reinforcement
Thick. = 190 mm



Allows mortar joints to be reinforced and gives greater rigidity to walls, allowing them to better distribute concentrated stresses and loads and avoiding surface cracks and blemishes.



Fixing systems

for anchoring different types of furniture, fixtures and claddings to GASBETON® masonry.



Safety restraint hooks for lightweight cladding



X3 - dowels with TER screw for fixing ventilated façades on GASBETON®



X3 - dowels with TPS screw for fixing window and door frames on GASBETON®



TML - dowels for fixing light loads on GASBETON®



Hex spanner for TML dowels



Dowels for fixing B/TERMO mineral insulating panel to correct thermal bridges on concrete structures



B/TERMO washer for covering dowels embedded in the insulating panel, preventing thermal bridges.

For the fields of application of each dowel see pages 38-39

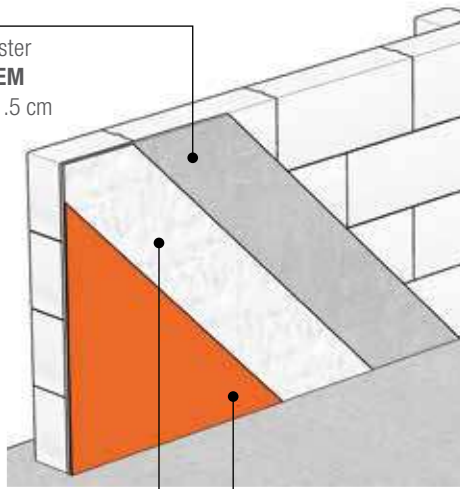
Variety of solutions for interior finishes

PLASTER → GYPSUM FINISH

Traditional thick solution with smooth gypsum finish



Base plaster
MULTICEM
thick. 1-1.5 cm



Finishing layer
(2/3 days after base plaster)
MULTIRASO INTERNI
thick. 2 mm

Decoration (20/22 days after finishing layer)
Breathable paint (washable in kitchens and bathrooms).
Avoid quartz or resin finish.

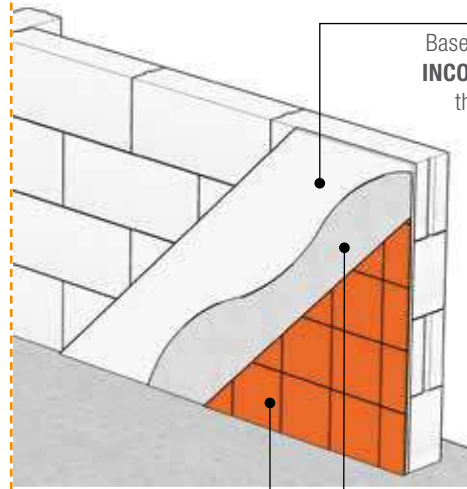
or

SKIM COATING → CLADDING

Thin solution for tiled kitchens and bathrooms



Base skim coat
INCOLLARASA
thick. 2 mm



Low elastic modulus
glue.



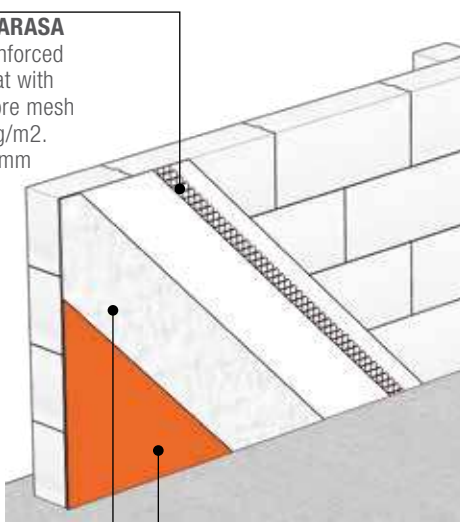
Decoration
(30 days after smoothing)
Tile cladding.

SKIM COATING → GYPSUM FINISH

Fast, thin solution with very smooth finish



INCOLLARASA
base reinforced
skim coat with
glass-fibre mesh
min 75 g/m².
thick. 5 mm



Finishing layer
(2/3 days after base skim coat)
MULTIRASO INTERNI
thick. 2 mm

Decoration (20/22 days after finishing layer).
Breathable paint (washable in kitchens and bathrooms).
Avoid quartz or resin finish.



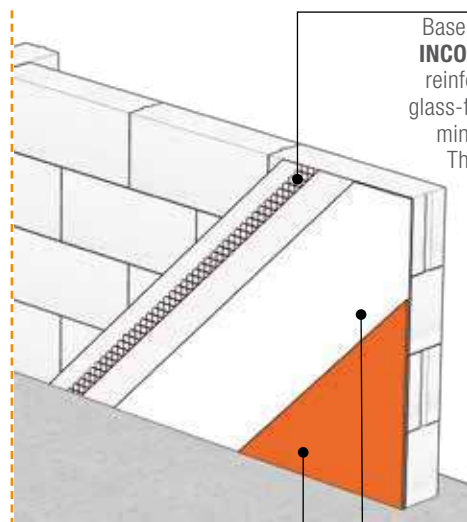
or

SKIM COATING → SMOOTH FLOAT FINISH

Fast, thin solution with coarse finish



Base skim coat
INCOLLARASA
reinforced with
glass-fibre mesh
min 75 g/m².
Thick. 5 mm



BIOFINISH lime-based
finishing layer Thick. 2mm
(or alternatively
with **INCOLLARASA**
cement finish)



Decoration (20/22 days after finishing layer).
Breathable paint (washable in kitchens and bathrooms).
Avoid quartz or resin finish.



Different solutions for exterior finishes

PLASTER → SKIM COAT

Solution with painting or plaster finish decoration

or

SKIM COAT → DECORATION

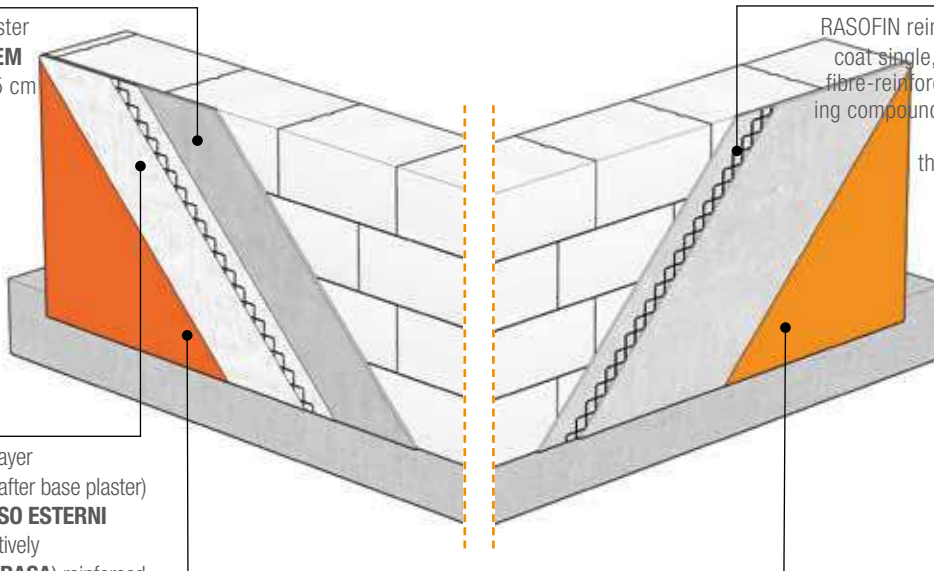
Solution with painting or plaster finish decoration



Base plaster **MULTICEM** thick. 1.5 cm



Finishing layer (6/7 days after base plaster) **MULTIRASO ESTERNI** (or alternatively **INCOLLARASA**) reinforced with glass-fibre mesh min 150 g/sqm. thick. 4 mm



Decoration (20/22 days after finishing layer) Siloxane, acryl-siloxane, silicate-based paint or plaster finish.

RASOFIN reinforced skim coat single, lightweight, fibre-reinforced smoothing compound for outdoor use thick. 6-8 mm



Decoration (20/22 days after finishing layer) Siloxane, acryl-siloxane, silicate-based plaster finish.

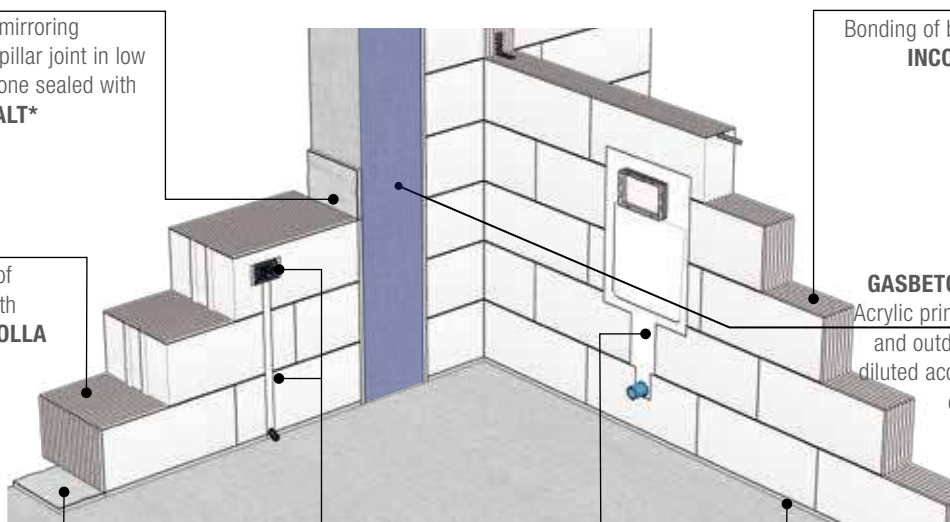
Products for block assembly and restoration



Reduced mirroring masonry-pillar joint in low seismic zone sealed with **MULTIMALT***



Bonding of blocks with **MALTACCOLLA M10 RS**



Bonding of blocks with **INCOLLARASA**



GASBETON® PRIMER

Acrylic primer for indoor and outdoor use to be diluted according to the different uses



Bedding of 1st course **IDRO ANCHORING MORTAR**



Restoration of tracks and breakages with **SIGIMALT**

Bedding of 1st course **IDRO ANCHORING MORTAR**



* MULTIMALT facilitates anchoring but does not allow thermal expansion of the masonry. Alternatively, it is advisable to insert the **GASBETON® Shock Absorbing Band**, anchor the curtain wall to the frame with metal pins and seal the joint with **GASBETON® Adhesive**.

Execution procedures: plaster and skim coat cycles for **interiors**

1st STEP – BASE LAYER

SIMPLE PLASTERING WITH MULTICEM



Arrange adjustment bands and corner guards all over the wall. Apply by hand or spray with a plastering machine a 1 - 1.5 cm thick layer of MULTICEM, moving from the bottom to the top. Within 40 minutes, level with an aluminium levelling bar with alternating right-left movements. To make thicker layers, apply the subsequent layers (max. single layer thickness 1.5 cm) using the "wet-on-wet" technique, having about 2 hours to pass between coats. On the same day or at the latest on the following day, depending on the weather conditions, perform levelling "scratching", then make a surface lamination with a large American trowel and re-compact the surface broken up by the "scratching". MULTICEM can also be finished rustic in interiors. In this case, pass a wet sponge trowel to eliminate small irregularities, even out the surface and apply paint directly.
Min. thick. finished plaster: 1 cm.

SIMPLE SKIM COAT WITH INCOLLARASA

Thin skim coat with INCOLLARASA. Alternatively, the entire surface to be tiled can be treated with a suitable primer or plastered with MULTICEM. In areas subject to water splashes, skim coat with waterproofing cement mortar.

REINFORCED SKIM COAT WITH INCOLLARASA



Apply a first coat of INCOLLARASA on the substrate with a notched trowel. Position the alkali-resistant glass-fibre mesh (mesh 4x4 mm, weight from 75 g/sqm to 160 g/sqm) and apply the second (final) coat of INCOLLARASA "wet-on-wet" with a smooth trowel, passing horizontally and vertically until you achieve a flat surface and total coverage of the mesh, which must be in the upper third of the overall thickness of the skim coat.
Recommended final thick.: 5 mm.

2nd STEP – FINISHING LAYER

SIMPLE SKIM COAT WITH MULTIRASO INTERNI



After the initial hardening and drying of MULTICEM or INCOLLARASA (2/3 days depending on climatic conditions), skim coat with MULTIRASO INTERNI. Insert anti-cracking mesh on MULTIRASO when applied to MULTICEM. It is best to dampen surfaces beforehand. Apply the product on the substrate with a large smooth American trowel, coating it with horizontal and vertical motions until the surface is flat. Depending on the desired thickness and finish, apply two or more coats in the same day, using the "wet-on-wet" technique, leaving at least one hour between coats. To obtain a particularly smooth effect, dampen the surface slightly and smooth with a small American trowel.
Max. thick.: 2 mm per single coat, 5 mm for the finished layer.

SMOOTHING WITH INCOLLARASA

By the end of the day that the base layer was laid with INCOLLARASA, perform smoothing with a sponge trowel, again with INCOLLARASA, in order to obtain a perfectly flat surface.

3rd STEP – DECORATION

DECORATING WITH PAINT

Decoration must be carried out when the substrate is fully cured and matured (at least 20/22 days after skim coat with MULTIRASO INTERNI or smoothing with INCOLLARASA). Decorate with breathable paint (washable in kitchens and bathrooms) or low elastic modulus decoration materials. Avoid quartz or resin finish.

DECORATING WITH TILES



Indoor coatings can be applied on GASBETON® masonry after treating the substrate with GASBETON® PRIMER diluted with water 1:5 or after applying a thin skim coat layer with INCOLLARASA. Bond the tiles with a low elastic modulus glue and seal the joints with waterproof products.



Execution procedures: plaster and smoothing cycles for **exteriors**

1st STEP – BASE LAYER

Arrange adjustment bands and corner guards all over the wall. MULTICEM can be applied by hand or sprayed with a plastering machine.

SIMPLE PLASTERING WITH MULTICEM

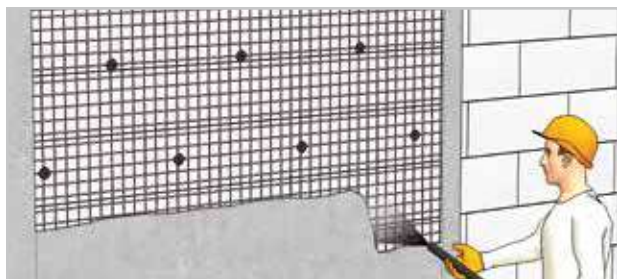
Apply a 1 - 1.5 cm thick layer of MULTICEM, moving from the bottom to the top. Within 40 minutes, level with an aluminium levelling bar with alternating right-left movements.

To make thicker layers, apply the subsequent layers (max. single layer thickness 1.5 cm) using the “wet-on-wet” technique, having about 2 hours to pass between coats.

On the same day or at the latest on the following day, depending on the weather conditions, perform levelling “scratching”, then make a surface lamination with a large American trowel and re-compact the surface broken up by the “scratching”.

Min. thick. finished plaster: 1.5 cm.

REINFORCED PLASTERING WITH MULTICEM or MALTACOLLA to be used in the case of bonded cladding



When finishing with external cladding, MULTICEM must be applied reinforced in 2 - 2.5 cm thickness, laying electro-welded galvanised steel mesh Ø 4 mm mesh 5 x 5 cm with special spacers and fixing it to the blocks by means of dowels (Fischer GB10 type for Evolution and Sysmic, GB14 for Active and Energy or SXR10x80T) in no. min. 6/sqm (no. of dowels depending on the type of block and the weight of the cladding).

Alternatively: mix MALTACOLLA M10 RS with GASBETON® PRIMER diluted with water in ratio 1:3, spread the first coat on the masonry with a trowel, apply an alkali-resistant glass-fibre mesh, mesh 10x10 mm, weight approx. 125 g/m² and anchor it to the masonry with specific GASBETON® dowels. After 2-6h, spread the second coat of MALTACOLLA M10 RS “wet-on-wet” with a smooth trowel until you obtain a flat surface to completely cover the dowels and the mesh, which must be in the upper third of the overall thickness of the skim coat (7-8mm).

2nd STEP – FINISHING LAYER

SIMPLE SKIM COAT WITH MULTIRASO ESTERNI

After the initial hardening and drying of MULTICEM (6/7 days depending on climatic conditions), skim coat with MULTIRASO ESTERNI (grain size < 1.3 mm) or INCOLLARASA (grain size < 0.6 mm). It is best to dampen surfaces. Apply the product on the substrate with a large American notched trowel, coating in a vertical direction. Place an alkali-resistant glass-fibre mesh (mesh 4x4 mm, 150-160 g/sqm) in the upper third of the total thickness of the skim coat and apply the second coat “wet-on-wet”. Finish with a sponge trowel, moistening with water if necessary, until a uniform, even surface is obtained.

In case of subsequent application of thick coloured plaster finish, you do not have to sponge the surface but you may simply scratch it with a large American trowel.

MULTIRASO ESTERNI is a water-repellent and fibre-reinforced product so, for outdoor applications, it is to be considered the most precautionary solution compared to the use of INCOLLARASA.

Max. thick.: 2 mm per single coat, 5 mm for the finished layer.

3rd STEP – DECORATION

DECORATING WITH PAINT OR PLASTER FINISH

Decoration must be carried out when the substrate is fully cured and matured (20/22 days after skim coat with MULTISKIM ESTERNI or INCOLLARASA). Decorate with breathable, water-repellent coloured paints or with siloxane, acryl-siloxane, silicate-based plaster finishes. The use of dark colours on façades increases surface tension and consequently the risk of cracking.

We do not recommend the application of resins, quartzes or other similar finishes that create excessive tension on the substrate during drying.

DECORATING WITH TILES ON EXTERIORS



Once the MULTICEM or reinforced MALTACOLLA M10 has completely matured (30 days), glue the external cladding with an elastic adhesive suitable for the type of cladding, using the double-spreading technique. We recommend the use of slabs/tiles of limited thickness and size and the utilisation of a suitable safety restraint hooks for lightweight cladding (see page 23).

The cladding must be laid with 5 - 6 mm joints treated with special elastic sealants that are as vapour-permeable as possible. Insert expansion joints, approximately every 3 m vertically and 6 m horizontally. A dry solution with a ventilation system capable of removing moisture to the glued cladding is preferable. (See sol. below)



In this case, apply MULTICEM or non-reinforced INCOLLARASA before anchoring the substructure to the façade. Use suitable dowels (i.e. X3, SXRL or FIS V), fix the chosen restraint system (metal substructure, point system, mixed system) to the building structure and masonry, then lay the cladding slabs.



Laying method for blocks and special pieces

Preparing the mortars:

INCOLLARASA and IDRO ANCHORING MORTAR must be mixed evenly with the mixing water until optimal plasticity is achieved.



Laying the first course:

Apply a layer of IDRO ANCHORING MORTAR onto the slab or foundation. Now, lay the IDRO block, ensuring maximum planarity both longitudinally and transversally. In this way, the masonry work above is protected, thanks to a considerable reduction in rising damp.



Alignment and levelling:

use the notched trowel to lay INCOLLARASA or MALTACOLLA M10 RS on the vertical (if smooth block) or horizontal side of each block.

The thickness of the joints is approx. 1.5 mm thanks to the trowel notching, which regulates glue application. To ensure suitable grip, the vertical joints must be staggered at a distance of between 1/3 and 1/2 of the length of the blocks.

During laying, the planarity of the courses should be adjusted by using a rubber mallet to level the blocks, eliminating any surface roughness or unevenness with a trowel.



Creating vertical stiffening: it is possible to make pillars in reinforced concrete thanks to the hollow blocks, suitably armed and filled with concrete.

These stiffening systems are essential in many situations, such as in large masonry or in the presence of heavy frames such as REI or reinforced doors.



Creating horizontal stiffening:

with the grooved blocks, it is possible to create horizontal stiffening kerbs for large masonry and lintels in situ, filled with concrete and suitably dimensioned reinforcement rods. These stiffeners are required, for example, at the top of walls with a height of ≥ 4 m or at the base in the case of yielding support structures or to realize lintels in situ as an alternative to the use of GASBETON® REINFORCED LINTELS.



Creating internal partitions:

GASBETON® blocks can be used to effortlessly create internal partitions between all types of rooms. Particular care must be taken to connect the partitioning to the main walls in order to make it more stable: this connection can be achieved, for example, by burying suitable metal connectors in the joints between blocks.

As an alternative to using INCOLLARASA, such masonry can be built by using the special polyurethane GASBETON® ADHESIVE to stick blocks together in a faster, more effective and cleaner way.



System housing:

The commissioning of electrical and plumbing systems is aided by easily being able to create suitably-sized compartments for them in walls, using electrical or manual groove-cutting machines, thus minimising masonry assistance times. Compartments for electrical boxes, pipes and any clamps are easily created using special milling cutters or a simple jig saw for wood. It is advisable to restore the tracks with INCOLLARASA mixed with water and swarf (preventing cracks due to shrinkage). When restoring large scale breakages, it is necessary to provide surface protection with fibreglass mesh reinforced pre-skim coat compounds.



Anchors and fixings:

Installation of door and window frames is also very simple. They are fixed directly to the walls with suitable wall plugs, without the need for gripping with clamps or cement mortar. Even any loads such as furniture, toilets, systems, etc. applied to the walls can be easily fixed with suitable dowels accompanied by corresponding metal screws.

Finishes and plaster:

After cleaning the surface to be plastered with a sorghum broom and removing any glue residues, proceed with the application of MULTICEM plaster specific for GASBETON®. On the external surface of the infills, apply a MULTISKIM reinforced skim coat over the MULTICEM primer plaster before proceeding with the finishing, using breathable products with low elastic modulus (and that are also water-repellent, on external areas). Alternatively, it is possible to carry out a reinforced skim coat directly on the masonry using RASOFIN on exteriors or INCOLLARASA on interiors.

During laying, it is advisable to insert a suitable protection against rising damp at the base (bituminous sheath and/or IDRO blocked laid on a layer of IDRO ANCHORING MORTAR).

It is advisable to always leave adequate space for the inflection of the floor/beam above (minimum 1 cm) at the top of the curtain wall and to fill it with special GASBETON® ADHESIVE type expanding foam.

Plaster and mortar laying recommendations

Finish the masonry once it has completed the initial settling and disposed of the production moisture.

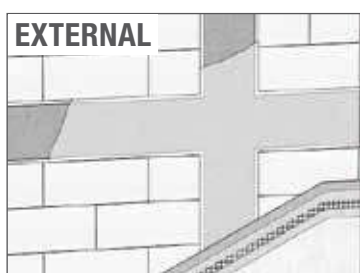
Do not apply the products at too low (<5° C) or high (>30 °C) temperatures, in the blazing sun, in strong wind or driving rain.

Once laid, the products must be protected from rain, frost and rapid drying due to high temperatures or excessive wind.

Do not wet the masonry under normal conditions; moisten it only in very hot or windy climates. Prepare the substrate, levelling out any irregularities with a special trowel, removing excess (protruding) joint sealing glue and inconsistent parts with a hard sorghum broom or spatula. Remove dust with a broom or compressed air.

Remove oils and greases with suitable degreasers.

Preparing the substrate



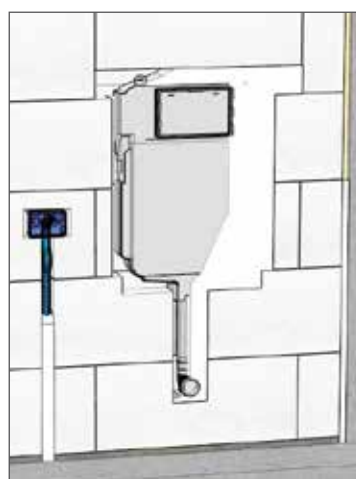
EXTERNAL



INTERNAL

PREPARING UNEVEN SUBSTRATES

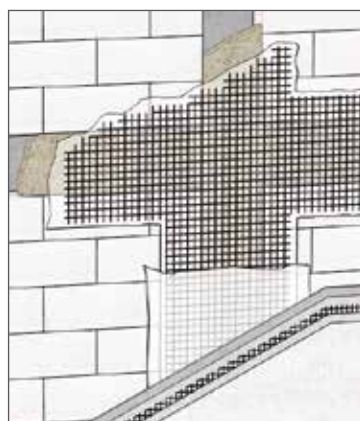
Pre-treat concrete surfaces "flush to the wall" with GASBETON® PRIMER or by applying an elastic skim coat with a notched trowel, creating cross-coated surface notching. For surfaces that are particularly absorbent or have a different degree of absorption, apply an open (non-covering) rendering mortar with products suitable for the type of underfloor or apply GASBETON® PRIMER.



RESTORATION AND SEALING

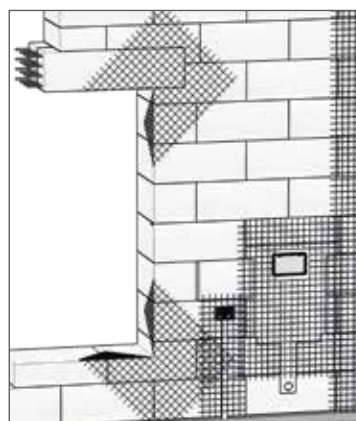
Restoring technical installation tracks (after light wetting and dust removal) and any gaps left between adjacent blocks with SIGILMALT.

Along perimeter joints or large gaps, fill with polyurethane GASBETON® ADHESIVE up to the level of the masonry, then seal on the surface with SIGILMALT.



PRE-SKIM COATING OF INSULATION ON THERMAL BRIDGES

In the case of thermal bridge insulation with calcium hydrate panels (B/THERMO), EPS or cork, carry out a skim coat reinforced with elastic skim coat (Mykoll) before the plaster cycle, interposing an alkali-resistant glass-fibre mesh, mesh 4x4 mm and weight min. 150 g/sqm, overlapping the masonry by 20/30 cm.



REINFORCING MESH

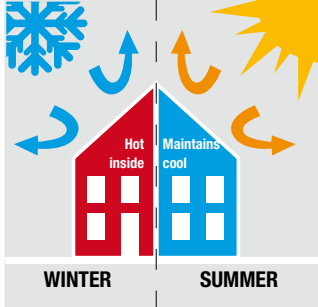
Around joints between uneven materials, technical installation tracks, technical boxes, at the corners of openings and balconies, reinforce the MULTICEM plaster by laying an alkali-resistant glass-fibre mesh in the centre of its thickness, 4x4 mm mesh and a minimum weight of 150 g/sqm. The mesh must be extended approx. 20/30 cm beyond the material breakline.

Product	Brief description	Classification	Indicative coverage	Recommended thickness
MULTICEM	Base plaster for interiors/exteriors	LW CSII W1	9 - 11 kg*cm/sqm	1.5 cm
INCOLLARASA M5	Glue for GASBETON® Skim coat for interiors/exteriors	GP CSIII W1 / T M5	for skim coating: 1.3 kg*mm/sqm for bonding: L 20 kg/m3 – M 14 kg/m3	5 mm skim coat
MALTACOLLA M10	Glue for GASBETON®	T M10	for bonding: L 20 kg/m3 – M 14 kg/m3	Joint thick.: 1-3 mm
MULTIRASO INTERNI	Gypsum-based skim coat for interiors	C7/20/2	0.9 kg*mm/sqm	2 mm
MULTIRASO ESTERNI	Mineral skim coat for exteriors	GP CSII W1	1.1 - 1.3 kg*mm/sqm	4 mm
RASOFIN	Single fibre-reinforced, water-repellent skim coat	LW CSIII W2	0.9 - 1.1 kg/sqm per mm of thickness	6-8 mm (minimum 5 mm)
MALTA ANCORANTE IDRO	Water-repellent anchoring mortar	G M10	1.6 kg * cm/ml for a 10 cm width	20 mm
MULTIMALT	Anchoring mortar	G M10	1.6 kg * cm/ml for a 10 cm width	10-20 mm
BIOFINISH	Breathable ecological finish for interiors	GP CSI	1.6 kg/m² per mm of thickness	2 mm
SIGILMALT	Mortar for track sealing	L M2.5	1 kg for closing gap of 1 dm³	-
BIOKOLL LIGHT	Ecological glue and skim coat	GP CSIV W0	Bonding: 3-4 Kg/sqm Skim coat 4-5.5 Kg/sqm	Bonding 3 mm Skim coat 5 mm
MYKOLL	Glue and skim coat	LW CSIII W0	Bonding: 3.5-5 Kg/sqm Skim coat 4-6 Kg/sqm	Bonding 3 mm Skim coating 4 mm

Specifications and technical data sheets available at: www.gasbeton.it/download/mortars-and-adhesives/

Technical features

Thermal insulation



GASBETON® masonry offers excellent thermal insulation properties thanks to the material's characteristic cellular structure. In accordance with harmonised standard UNI EN 771-4, the thermal conductivity of the product $\lambda_{10\text{ dry}}$ (at a temperature of 10°C in the dry state) is declared both on the basis of direct measurement tests carried out according to standards

ISO 8302 and UNI EN 12667 at the Polytechnic University of Bari and according to standard UNI EN 1745 (depending on the gross dry mass). To calculate the thermal transmittance U of the masonry (according to UNI EN ISO 6946) it is necessary to use the design thermal conductivity λ (useful) obtained by multiplying the basic thermal conductivity $\lambda_{10\text{ dry}}$ by a greater coefficient Fm that takes into account the moisture present in the masonry under operating conditions.

It is the designer's task to define all the necessary parameters (based on the performance declared in the D.o.P.) in order to assess the suitability of the product for its use.

Fire resistance rating

The special physical and chemical characteristics of aerated autoclaved concrete make GASBETON® one of the most suitable products for creating fire-resistant walls. The materials making up the GASBETON® mixture are of mineral, inorganic and incombustible origin and do not release toxic fumes in case of fire. Furthermore, the cellular structure, rich in air cells, gives GASBETON® high thermal insulation performance, useful for containing the temperature of the compartments.

Reaction to fire

Aerated autoclaved concrete elements and premixed mortars bearing the GASBETON® trademark are considered Euroclass A1 (ex class 0, non-combustible), without having to be tested, since they are included in the list in Annex C to Ministerial Decree 25/10/07. No type approval is therefore required and, as regards the forms to be submitted to the Provincial Fire Brigade Commands, the EC declaration of conformity (which accompanies the supply of each product) can simply be attached to the application for the fire prevention certificate.



Fire resistance rating

The fire resistance of GASBETON® EVOLUTION non-load-bearing walls is declared on the basis of tests carried out at the CSI recognised laboratory in Bollate in accordance with the procedures established by standard UNI EN 13501-2:2016 on non-plastered walls in blocks assembled with M5 glue for thin joints.

NON-load-bearing wall		Block thickness (cm)												
		5	8	10	12	15**	20	24	30	35	37.5	40	45	50
Fire resistance rating	ACTIVE	-	-	-	-	-	-	-	EI 240					
	ENERGY	-	-	-	-	-	-	EI 240				-	-	
	EVOLUTION	-	EI 120	EI 240				EI 240				-	-	
	SYSMIC	-	-	-	-	-	-	EI 240				-	-	-
	ACUSTIC	-	EI 60 *			-	-	-	-	-	-	-	-	-

Note:

* values according to the tabular method. Fire resistance certificates were obtained by testing 8 and 10 cm thickness blocks with vertical joint glued. If interlocking blocks are used, it is possible to obtain the same result gluing the vertical joint anyway. The classification ratio can be extended to all thicknesses greater than 10.

** For thick. 15cm, consider EI180 for walls H<4 in application extension of the classification ratio of thick. 10, EI120 according to the tabular method for H walls between 4 and 4.5 with a reinforced concrete kerb at a height of less than 4m

Load-bearing wall		Block thickness (cm)												
		5	8	10	12	15	20	24	30	35	37.5	40	45	50
Fire resistance rating	EVOLUTION	-	-	-	-	-	-	REI 180	REI 240				-	-
	SYSMIC	-	-	-	-	-	-	REI 180	REI 240				-	-

The fire resistance classification report for thicknesses 8 and 10 for walls < 4m high is available by writing to serviziotecnico@bacchispa.it.

Non-load-bearing masonry, exposed on one side to fire, with thick. >=24cm can be classified EI240 on the basis of the values shown in table S.2-42 of Ministerial Decree 3 August 2015 as updated by Ministerial Decree of 18 October 2019 (tabular method). The same table assigns EI120 values to masonry thick. >=15 and EI180 for thick. >=20. For thick. H>4m walls, it is necessary to provide a kerb at an height of less than 4m that offers a constraint function equal to that offered by the inter-storey floors (limitation reported in point "a" of table S.2-42). These walls can be built with blocks at least 15 cm thick. For **non-plastered aerated concrete load-bearing masonry** exposed on one side, with h/s<=20, h between 2 floors or horizontal reinforcements with equal restraint function, table S.2-44 shows a REI 120 value with min. thick. 20cm, REI 180 with min. thick. 24cm and REI 240 with min. thick. 30cm.

Mechanical strength

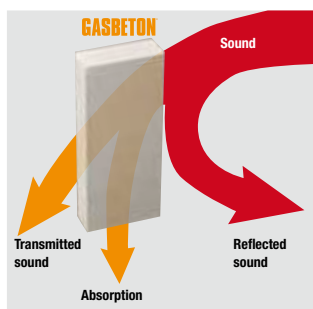
GASBETON® solid and ground element blocks (characterised by millimetric dimensional tolerances) comply with UNI EN 771-4 (Specification for masonry units - Part 4: aerated autoclaved concrete masonry units) and bear the CE marking in category I, according to the 2+ conformity certification system. The rigour of the GASBETON® production process makes it possible to declare a compressive strength value lower than the actual resistance of the blocks in 95% of cases.

GASBETON® INCOLLARASA and MALTACOLLA RS they are premixed thin-layer masonry mortars of category M5 of category M5 and M10, respectively, with guaranteed performance for the assembly of GASBETON® blocks and are CE marked in accordance with UNI EN 998-2 according to the 2+ certification system.



Physical and mechanical properties	EVOLUTION		SYSMIC	
	Average val.	Char. val.	Average val.	Char. val.
Average masonry density (including GASBETON® glue and moisture balance) G_m	600 ±60 Kg/m ³	-	700 ±60 Kg/m ³	-
Characteristic compressive strength in the direction of vertical loads on cubic specimen f_{bk}	-	≥ 3.2 N/mm ²	-	≥ 5.0 N/mm ²
Characteristic initial shear strength of masonry f_{vk0}	-	0.1 N/mm ²	-	0.3 N/mm ²
Normal secant modulus of elasticity of masonry E	1726 N/mm ²	-	4574 N/mm ²	-
Secant tangential modulus of elasticity of masonry G	690 N/mm ²	-	1830 N/mm ²	-
Dimensional stability for moisture $\epsilon_{cs,ref}$	≤ 0.06	-	≤ 0.04	-

Acoustic insulation



Despite their light weight, GASBETON® walls offer good sound insulation values thanks to both the porosity of the material and the precision of the installation obtained with a "thin joint", which prevents the formation of acoustic bridges that are typical of traditional structures such as hollow blocks that require a thicker mortar joint. Moreover, it has been possible to verify from experimental tests carried out that the presence of technical installation tracks, carried out with a suitable electric groove-cutting machine, has no influence on the final performance of the wall. The soundproofing power values of GASBETON® walls shown in the following table refer to walls plastered with 1.5 cm of MULTICEM plaster on both sides.

		Block thickness (cm)												
		5	8	10	12	15	20	24	30	35	37.5	40	45	50
Performance R _w (dB)	ACTIVE	32	-	-	-	-	-	-	46	47	48	49	50	51
	ENERGY	-	-	37	-	-	-	45	47	49	49	50	-	-
	EVOLUTION	35	38	40	41	43	46	48	50	52	52	53	-	-
	SYSMIC	-	-	-	-	-	-	50	52	-	-	-	-	-
	ACUSTIC	-	40	42	44	-	-	-	-	-	-	-	-	-

In order to obtain high soundproofing power values with a limited wall thickness, it is possible to create a double wall. See the *Acustic* page for further details.

CERTIFIED ACOUSTIC PACKAGES:

Acoustic Pack 63:	R'w 63, Total thickness 28 cm
Acoustic Pack 65:	R'w 63, Total thickness 30 cm
Acoustic Pack 59 Anti-seismic:	R'w 59, Total thickness 28 cm
Acoustic Pack 58:	R'w 58, Total thickness 23 cm

Specifications

Available at
www.gasbeton.it
 in the DOWNLOAD section

Certificates can be requested by writing to: supportotecnico@bacchispa.it

Solutions for fixings and anchors on GASBETON®

Canopy
FPX

Armoured doors
FIS V

False frames
X3 SXR

Awnings
FIS V

Towel racks
UX

TML dowel insertion

1. Drill a hole in the concrete.
2. Clean the hole with a brush.
3. Insert the TML dowel into the hole.
4. Tighten the nut and washer.

Mailbox
TML

Wall cabinets
X3 GB FPX

Hood
TML

Kitchen accessories
SX UX

Concealed fixing brackets
FIS V

Panels
SX UX TML

Modules for wall-hung sanitaryware



FRAME

Shower cabin



X3 SXR

Mirror



UX

Ventilated façade



FIS V SXR

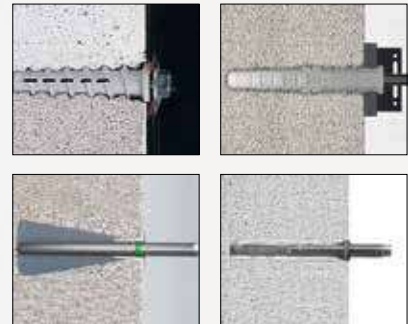
Door and window frames



X3 SXR



Fixing examples



NOTES:

- use X3 and SXR on blocks with thickness greater than 24 cm.
- use FIS V on blocks with density 300-350 Kg/m³



GB FPX

Air conditioner



X3 SXR

False frames



X3 GB FPX

TV supports



FIS V SXR

Window grilles




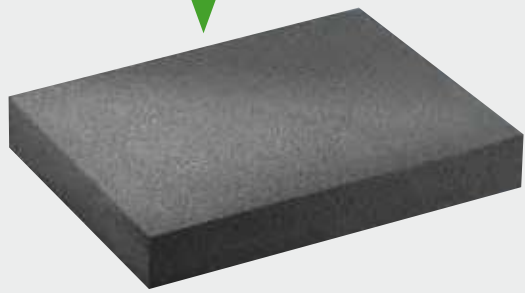


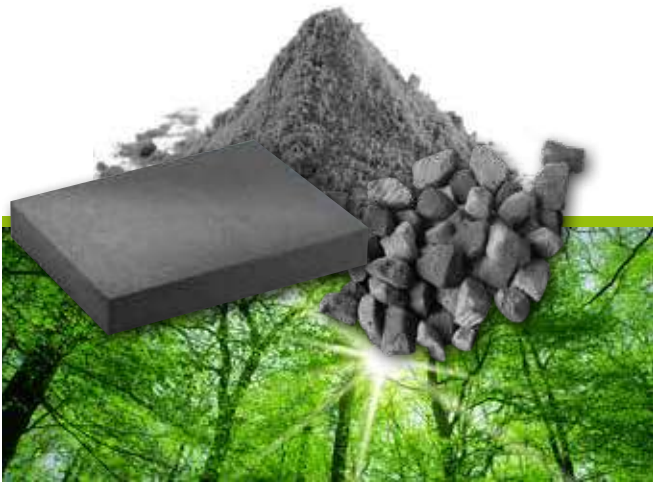
FIS V

Pergolas

Why choose cellular glass:

Cellular glass is an environmentally friendly, non-combustible and extremely resistant insulating material.

- An environmentally sustainable production process**
The glass to be recycled is sorted, ground, mixed with ecologically harmless activators and then expanded in a continuous furnace. Then, the expanded glass is cooled differently depending on the type of product to be made.
- To produce **GLAPOR slabs**, the molten, expanded glass mass is conveyed into a cooling plant that slowly brings it to room temperature, forming a homogeneous layer that is then polished, cut into panels of various sizes and packaged.
- To instead produce **B/GLAS® granulate**, the molten glass mass is cooled rapidly after leaving the continuous furnace. The considerable tensions created fragment the expanded glass matrix into many granules of irregular shape and size.





Performance Unaltered over Time

Glass is an extremely durable material and its characteristics remain unaltered over the years. Using it in construction for thermal insulation or waterproofing means choosing a material that will guarantee the same performance forever.

Complete Protection

In addition to thermal insulation, cellular glass can protect buildings from other threats, such as moisture infiltration or Radon gas, by fulfilling several tasks at once.

Ideal in Harsh Environments

Thanks to its compressive strength and high temperature characteristics, this material is ideal for special applications such as the insulation of furnaces and industrial plants or floors subject to heavy loads. It is also used in environments where the aggression of chemicals is a problem for other insulation materials.

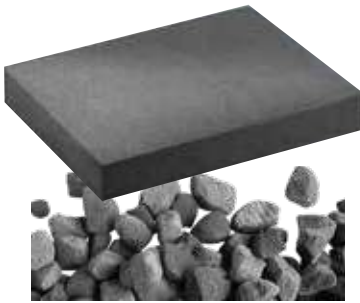
Certified

In addition, the environmental sustainability of cellular glass is certified by the EPD - Environmental Sustainability Declaration, which is issued after checks on raw materials and production methods.

GLAPOR is also certified as a healthy material that does not emit VOCs or other harmful substances.



Features of the material:



Whether in sheet or in granule form, **cellular glass boasts a very high compressive strength, superior to common building insulation products.**

For this reason it is suitable for thermal insulation under civil or industrial floors, under foundations, under curtain walling or on roofs.



This material belongs to the best fire reaction class - **A1 non-combustible** - and is able to retain its properties even when subjected to extremely high temperatures, with a softening point exceeding 700°C. Moreover, it is highly resistant to chemicals, does not decay and cannot be attacked by mould, insects or other animals.



B/GLAS gravel forms an anti-capillary insulation layer, so the material does not absorb water. At the same time, the gaps between the granules allow any water infiltration to drain away easily, preventing harmful stagnation under the building.



Our cellular glass is **100% recycled, recyclable and environmentally friendly.** It is in fact made from 100% recycled glass. It can also be further recycled.



The billions of closed cells containing air make it an **excellent thermal insulator.** In addition, thanks to the thermal capacity of the glass itself and its developed density, it also has good **thermal inertia qualities** making it an excellent insulator even in hot climates or periods.



The closed-cell glass structure makes GLAPOR panels completely impermeable to water and vapour, protecting the building from infiltration due to rain or rising damp from the ground. In addition, when laid with the appropriate tools, **GLAPOR slabs also provide an impenetrable barrier to Radon gas,** as proven by tests carried out for this purpose.



The light weight of the material makes it much easier to handle on site.

GLAPOR slabs are ground and easily machined; in fact, they can be easily cut and shaped, making installation fast, precise and economical.

B/GLAS® gravel, with a density (150 kg/m³) 10 times lower than traditional aggregates, also allows for quick and easy installation, resulting in cost savings, especially in the case of energy upgrades.



GLAPOR is a healthy material that does not emit harmful substances, as certified by the certification protocol **Indoor Air Comfort GOLD**



Resulting benefits:

For builders



Saving in time, materials and machining



- B/GLAS - shallower trenches and simplified stratigraphy with fewer castings.
- GLAPOR - insulation, waterproofing and radon barrier in one panel.

Quality and value of finished work



- High-performance, environmentally friendly, healthy and extremely durable constructions

Reliable Partner



- One point of contact for the supply of numerous materials
- Secure reference for assistance in the planning and implementation phase

For the inhabitants



Lower Management Costs



- Savings on utility bills
- No insulation material maintenance/ replacement

Increased Property Value



- For high energy performance that lasts over time
- For construction quality comfort and safety offered

Increased Safety and Well-being



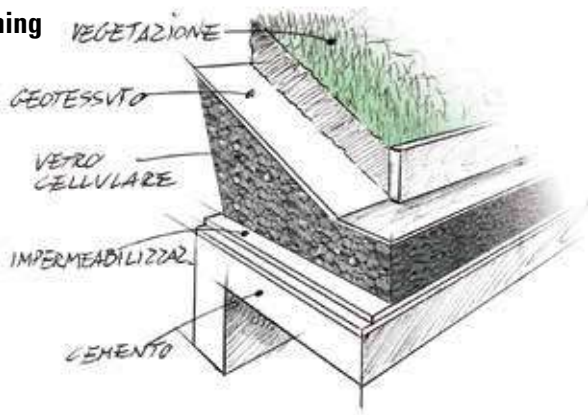
- Fire protection
- Healthier environments
- Highly sustainable buildings

...and the advantage of a warm sensation of well-being!

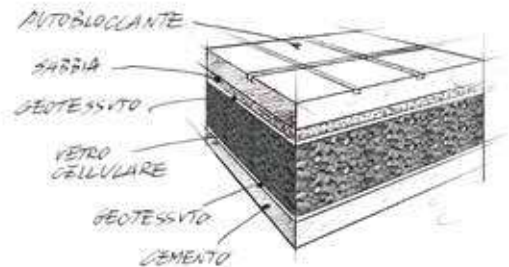


Overview of applications:
Cellular glass **granulate**

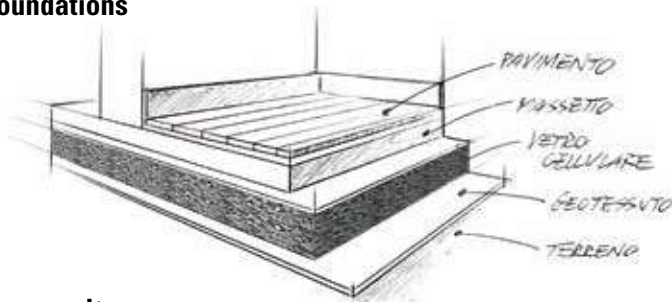
Green roofs and gardening



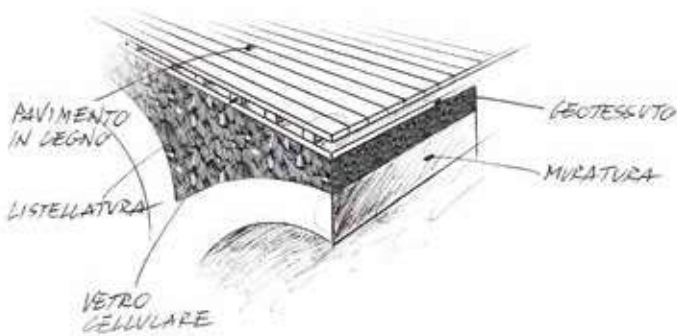
Flat roofs



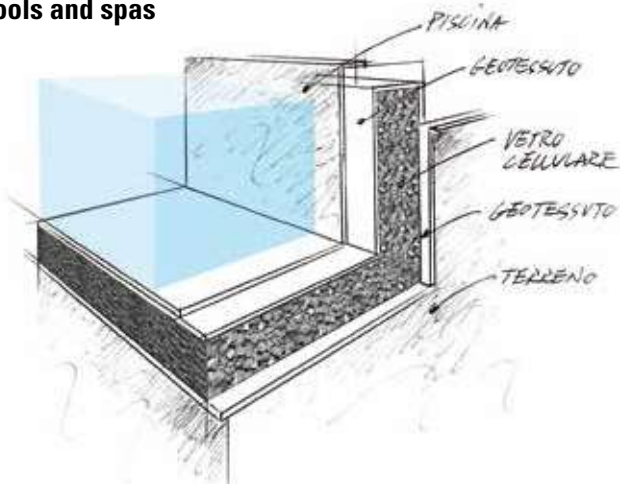
Slab foundations



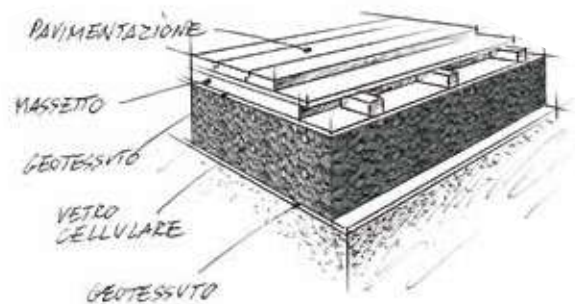
Masonry vaults



Pools and spas

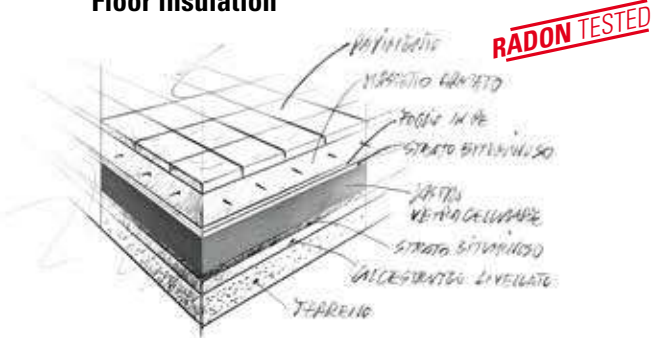


Flooring

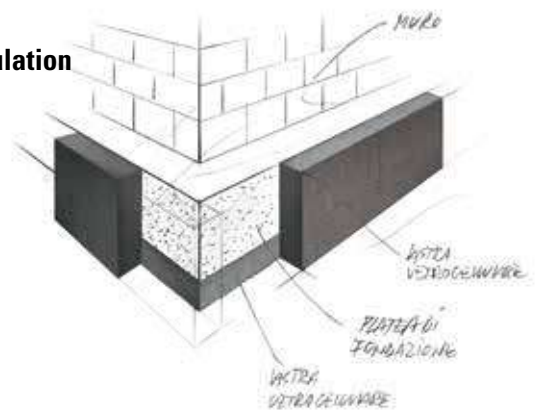


Cellular glass slabs

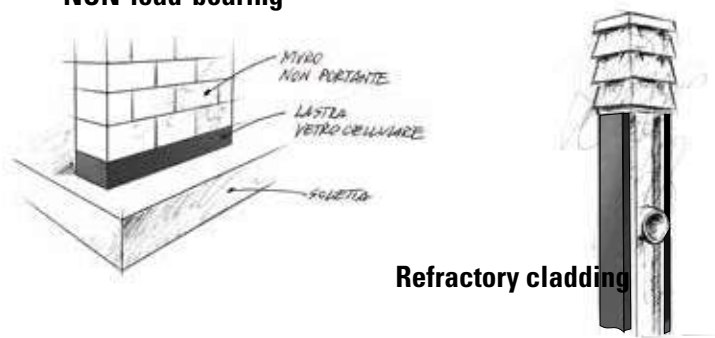
Floor insulation



Slab insulation

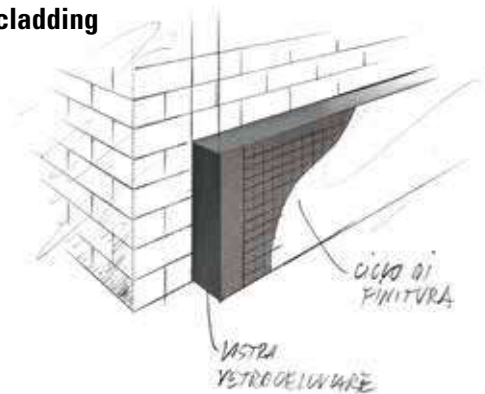


Damp course for masonry NON-load-bearing

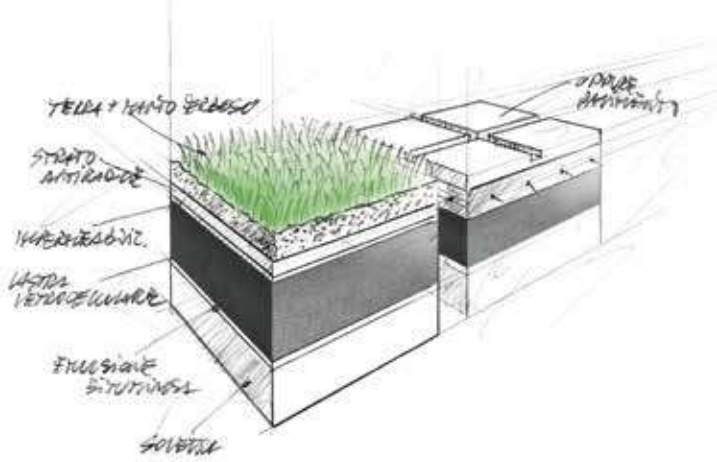


Refractory cladding

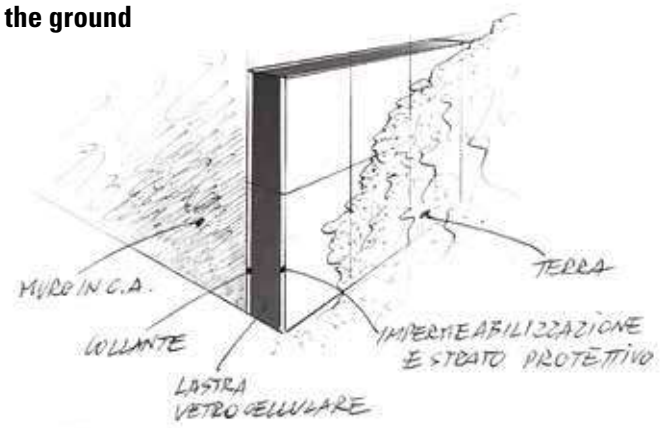
Insulation cladding skirting



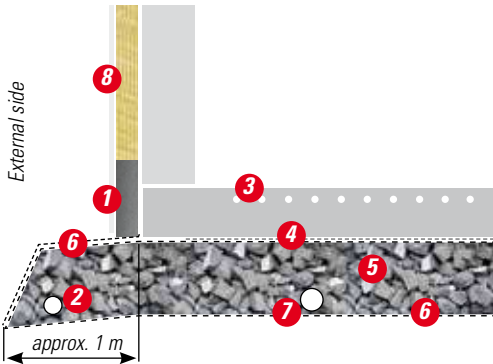
Roof insulation and waterproofing



Insulation of walls against the ground

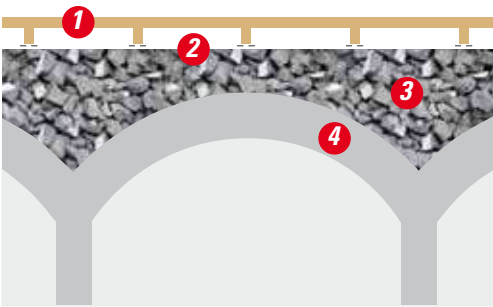


Granulate applications



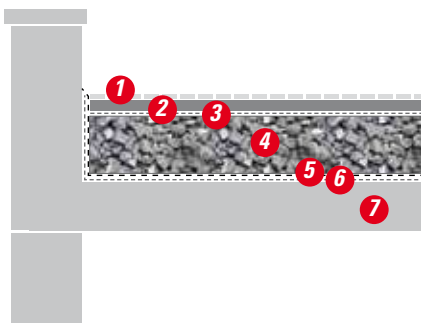
Slab foundation

1. GLAPOR cellular glass slab.
2. Any drainage.
3. Foundation slab.
4. Geotextile or polyethylene sheet.
5. B/GLAS cellular glass granulate.
6. Geotextile.
7. Any systems.
8. Insulation cladding with traditional insulation.



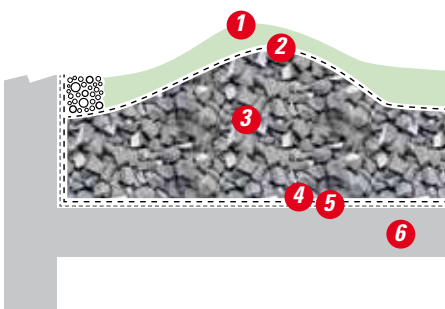
Masonry vault

1. Wooden floor and battens or floor and screed.
2. Geotextile.
3. B/GLAS cellular glass granulate.
4. Masonry vault.



Flat roof

1. Squared stone or self-locking paving slabs.
2. Levelling sand.
3. Geotextile.
4. B/GLAS cellular glass granulate.
5. Protective layer.
6. Waterproofing.
7. Covering slab.

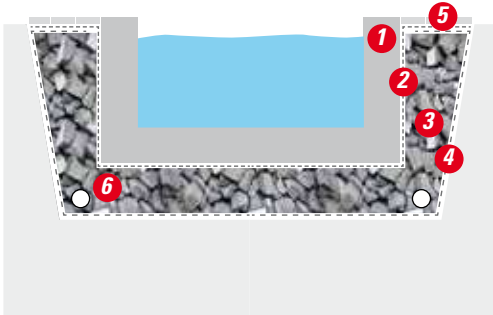


Green roof and gardening

1. Surface created as desired, greening.
2. Geotextile.
3. Cellular glass granulate also bonded with cement.
4. Protective layer.
5. Waterproofing.
6. Covering slab.



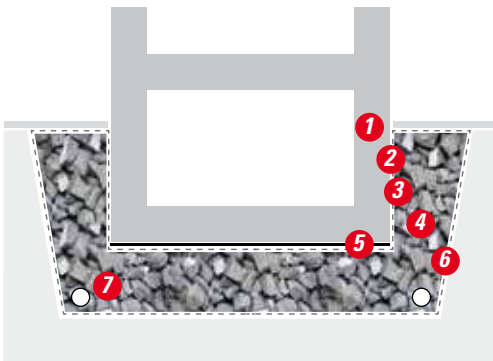
Pools and spas



1. Reinforced concrete structure
2. Geotextile.
3. B/GLAS cellular glass granulate.
4. Geotextile.
5. Screed and flooring.
6. Drainage.



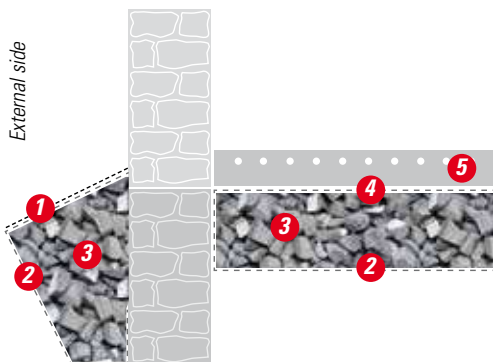
Basement



1. Basement in reinforced concrete
2. Waterproofing.
3. Waterproofing protection.
4. B/GLAS cellular glass granulate.
5. Polyethylene
6. Geotextile.
7. Drainage.



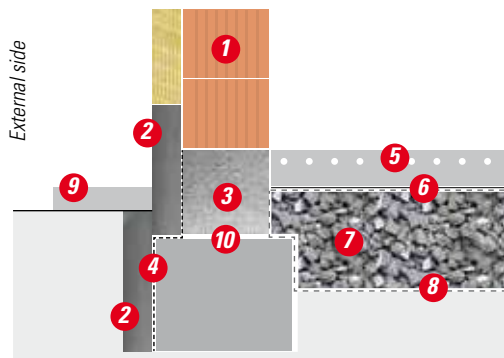
Flooring energy upgrading.



1. Embossed membrane.
2. Geotextile.
3. B/GLAS cellular glass granulate.
4. Polyethylene sheet.
5. Screed.



Direct foundation



1. Masonry.
2. GLAPOR cellular glass slab.
3. IDRO GASBETON® block.
4. Waterproof sheath.
5. Reinforced screed.
6. Polyethylene sheet.
7. B/GLAS cellular glass granulate.
8. Geotextile.
9. Sidewalk.
10. IDRO GASBETON® ANCHORING MORTAR.



Crawl space design with B/GLAS

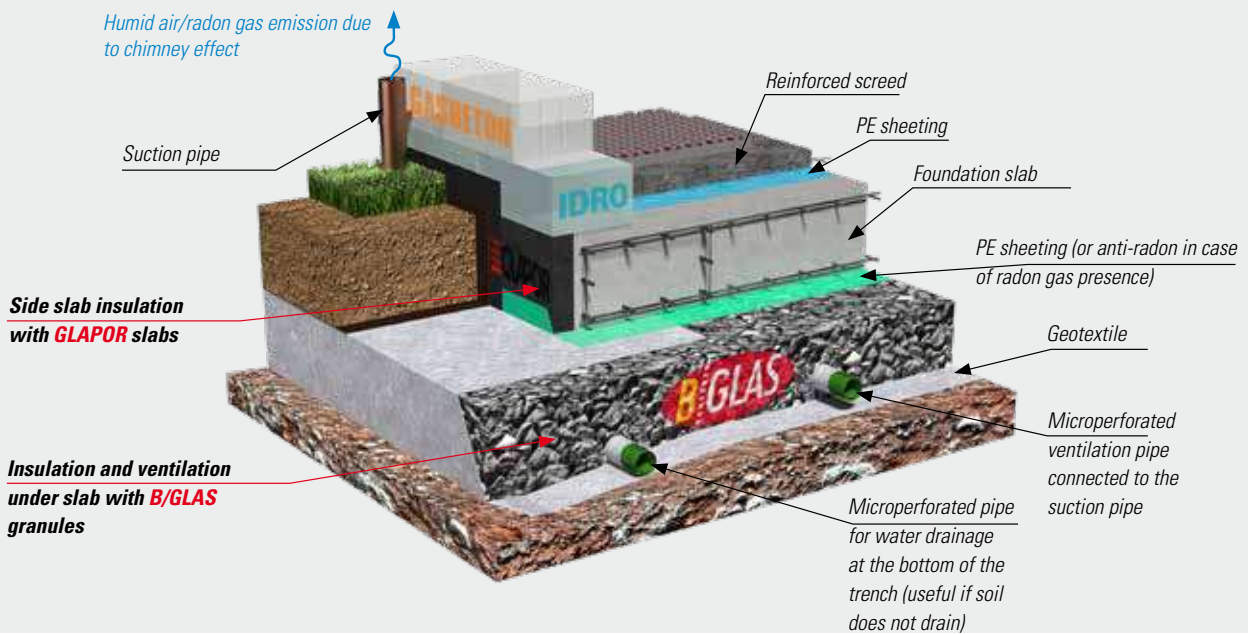
The B/GLAS crawl space simply fulfils multiple functions: **resistance to structural loads, thermal insulation of the foundation slab, protection against rising damp, drainage, thermal bridge insulation.**

The ground connection must be designed to ensure the stability of the structure and at the same time thermal comfort inside the house, no surface condensation on the floor and at the base of the masonry.

How do you design an insulating crawl space without a cavity that can dispose of moisture and radon gas?

With B/GLAS in combination with a radon-proof membrane and micro-perforated pipes connected to a suction pipe. The draining pipes, with a minimum diameter of 10 cm, must be joined together and connected to the outside by means of a suction pipe. An extractor fan should only be installed on this pipe if excessive radon concentrations are detected. To limit the entry of radon into the interior of rooms, it is essential to ensure adequate sealing of the stratigraphy located above the crawl space. It is therefore advisable to lay an anti-radon membrane with overlapping flaps before casting the slab. NOTE: solution recommended by Lombardy Region guidelines for the prevention of exposure to radon gas in buildings.

Under slab insulation



Continuous foundation insulation

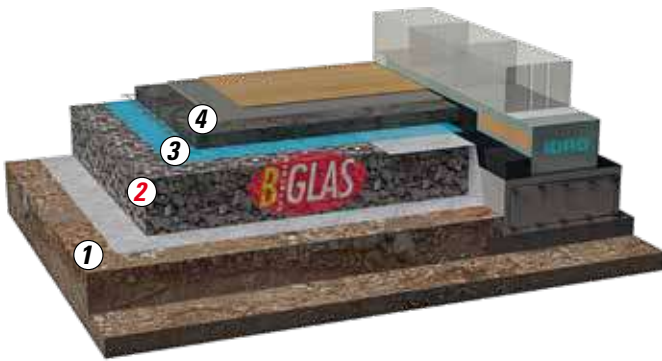


Comparison between two insulated and non-ventilated crawl spaces (with the same Thermal Transmittance $U = 0.24 \text{ W/m}^2\text{K}$)

A) Crawl space made with B/GLAS granules

Filling between continuous foundations carried out with insulating cellular glass granules, laid dry and compacted on site, without the need to make the screed in advance.

Functions: thermal insulation, anti-capillarity and drainage.
Advantages: speed of laying, reduction in the number of materials, reduction in thickness, 100% ecological solution, possibility of aeration for radon evacuation.



Stratigraphy	Thickness
1 - TNT geotextile >200 g/sqm	cm 0
2 - B/GLAS 600 compacted cellular glass granulate crawl space	cm 30
3 - PE polyethylene vapour barrier/separation layer	cm 0
4 - Cement screed reinforced with electro-welded mesh	cm 8
Total stratigraphy B/GLAS 600*	cm 38
(*) Consider 2 cm more when using B/GLAS 800	



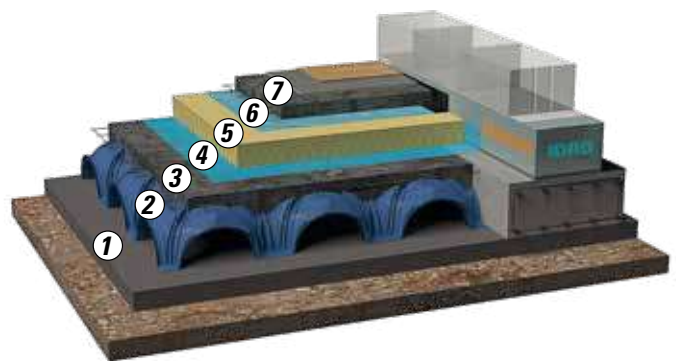
- Less thickness and trench volume
- Faster turnaround times due to less machining
- Less overall cost



B) Crawl space made with disposable formwork

Filling between continuous foundations carried out with disposable modular elements, laid on lean concrete, filled with in situ concrete, with the addition of thermal insulating panels.

Functions: thermal insulation, anti-capillarity.
Advantages: possibility of ventilation for radon evacuation.



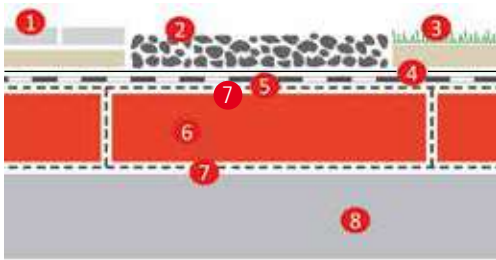
Stratigraphy	Thickness
1 - Lean concrete	cm 10
2 - Crawl space in modular formwork	cm 25
3 - Reinforced concrete casting with electro-welded mesh	cm 5
4 - Separation layer	cm 0
5 - Extruded polystyrene XPS insulation	cm 13
6 - PE polyethylene separation layer	cm 0
7 - Cement screed reinforced with electro-welded mesh	cm 8
Total traditional stratigraphy	cm 61



- Greater thickness and depth of trenches required
- Longer times due to more materials and machining (3 castings)
- Higher overall cost

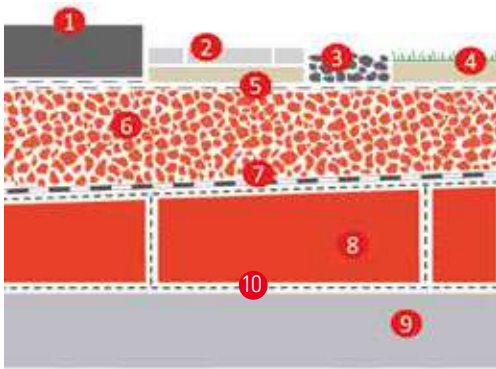


Slab applications



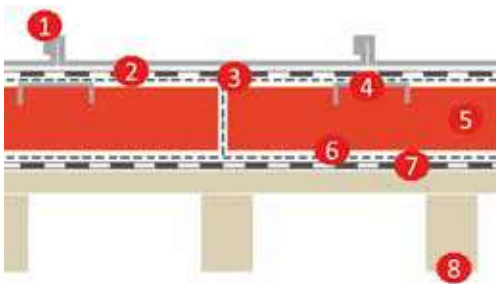
Flat roof, terrace and balcony

1. Paving or self-locking paving slabs with geotextile.
2. Gravel with geotextile.
3. Earth with turf and geotextile.
4. Protective or anti-root layer.
5. Bituminous sheath.
6. GLAPOR cellular glass slab.
7. Bitumen or PECIMOR® DK.
8. Structural slab.



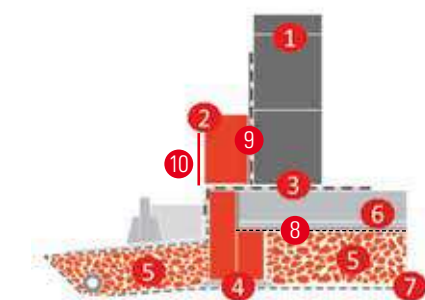
Flat roof and terrace

1. Asphalt.
2. Self-locking blocks on crushed stones.
3. Gravel.
4. Earth with turf.
5. Geotextile.
6. B/GLAS cellular glass granulate
7. Waterproofing.
8. GLAPOR cellular glass slab with built-in slope.
9. Structural slab.
10. Bitumen or PECIMOR® DK.



Wooden roof

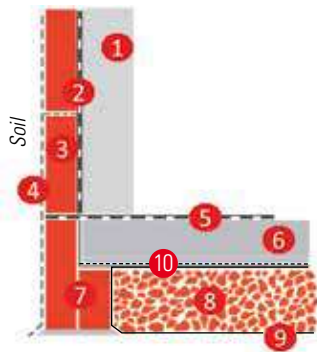
1. Sheet metal slab.
2. Separation layer.
3. Waterproofing.
4. Metal fixing guide.
5. GLAPOR cellular glass slab.
6. PECIMOR® DK glue.
7. Geotextile.
8. Wooden planking and joists.



Insulation cladding skirting board

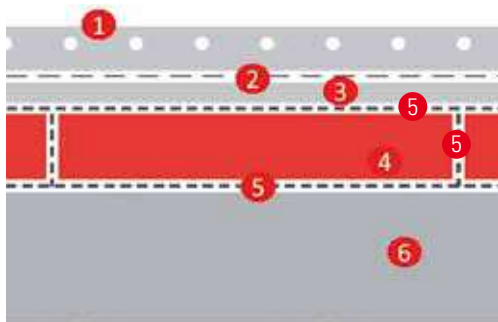
1. Masonry.
2. GLAPOR cellular glass slab.
3. Waterproofing or radon sheeting.
4. GLAPOR 60/30 edge block.
5. B/GLAS cellular glass granulate.
6. Foundation slab.
7. Geotextile.
8. PE waterproof sheeting.
9. PECIMOR® DK glue.
10. Pre-skim coating with MB2K





Reinforced concrete wall against ground

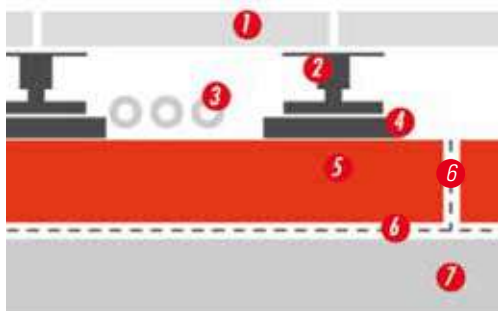
1. Reinforced concrete wall
2. PECIMOR® DK glue.
3. GLAPOR cellular glass slab.
4. Skim coating and waterproofing
5. Waterproof or radon sheath.
6. Foundation slab.
7. GLAPOR 60/30 edge block.
8. B/GLAS cellular glass granulate.
9. Geotextile.
10. PE waterproof sheeting.



Slab against ground (new or upgrading)

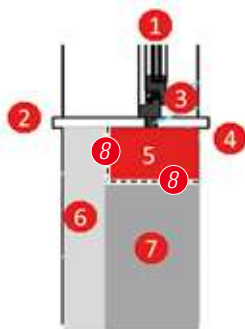
RADON TESTED

1. Screed and floor (with possible built-in heating).
2. Polyethylene sheet.
3. Any acoustic insulation.
4. GLAPOR cellular glass slabs.
5. PECIMOR® DK adhesive.
6. Existing foundation plate or floor.



Raised floor

1. Support floor.
2. Foot.
3. Any conductor.
4. Load distribution plates.
5. GLAPOR cellular glass slabs.
6. Bitumen or PECIMOR® DK.
7. Existing foundation plate or floor.



Sill with thermal break

1. Door and window frame.
2. Outside sill.
3. Thermal break.
4. Inside sill.
5. GLAPOR cellular glass slab.
6. Cladding insulation.
7. Masonry.
8. Bonding and skim coating with MB2K



GLAPOR: tips for correct installation

1. The materials are delivered packed on Euro-pallets. The buckets of PECIMOR® DK adhesive contain two components separated by a plastic separator.



2. Make sure that the surface to which the slabs will be bonded is clean, stable and properly levelled. We recommend pre-treating absorbent substrates with PECIMOR® DK adhesive mixed with water in a ratio of 8:1 (3.5 litres for the whole bucket).



3. To use PECIMOR® DK as an adhesive, mix the 2 components in the bucket for about two minutes until a homogeneous, lump-free mixture is achieved. Use the adhesive immediately after mixing and do not stir it afterwards.



4. Using a notched trowel, spread a layer of PECIMOR® DK over the entire surface of the slab; alternatively, for laying on a horizontal surface, the adhesive can be spread directly on the substrate.



5. Spread the adhesive also on the edges of the slabs so that the joints are perfectly sealed. Use a normal trowel or smooth trowel.



6. Lay the slabs in adherence to each other, staggering the joints and applying light pressure so that the adhesive adheres well to the slab and the substrate.



7. Level the material coming out of the joints with a spatula before the adhesive hardens.



8. Proceed as described above to cover the entire desired surface. Newly bonded slabs must be protected from direct sunlight, driving rain and mechanical damage.



9. Perform surface smoothing with undiluted PECIMOR® DK to protect the slabs before gluing other materials such as bituminous sheaths.



10. After the skim coat has dried, glue on the self-adhesive bituminous sheath or torch on traditional bituminous sheaths, taking care to direct the flame onto the roll of sheathing.



Roof, terrace and ceiling insulation



In addition to under-floor or under-foundation insulation, GLAPOR slabs are also applied to flat roofs and terraces to provide thermal insulation and waterproofing, even allowing for roof gardens and green roofs.



GLAPOR slabs can also be used for insulation cladding skirting boards or pitched roof insulation. In these applications on inclined, vertical or even ceiling surfaces, in addition to the usual bonding with PECIMOR® DK, the slabs are fixed with concealed mechanical anchors.

PCI PECIMOR® DK bituminous glue and skim coat



Consumption:
As primer or base coat (diluted in water in a ratio of 8:1): approx. 0.15 kg/m²;
As an adhesive: approx. 3.5 - 4.5 kg/m²;
As a skim coat: approx. 1.5 kg/m².

Remmers MB 2K VOC-FREE glue and skim coat



Consumption:
As an adhesive: approx. 3.5 - 4.5 kg/m²;
As a skim coat: approx. 1.5 kg/m².
Min. 1.1 kg/m²/mm dry thickness.
1.1 mm wet thickness corresponds to approx. 1 mm dry thickness.

KIESOL Primer before application of MB 2K



Consumption:
Primer: approx. 0.1 - 0.3 kg/m² (dilute 1:1 with water)

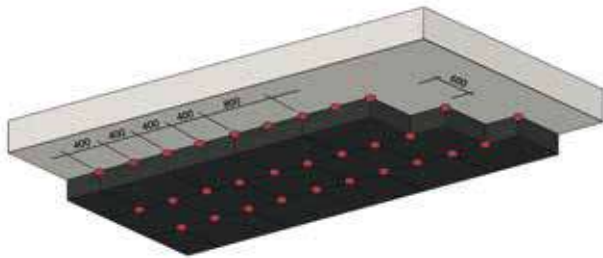
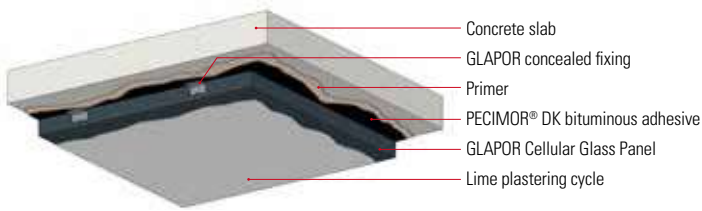
Diagrams for mechanical fastening of **GLAPOR** slabs



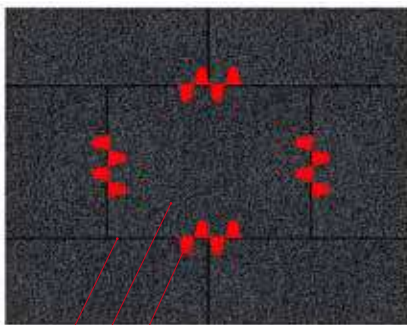
Fixing plate
 available in 3 sizes:
 FIXGLAS4 for slabs 4 to 6 cm thick
 FIXGLAS6 for slabs 6 to 9 cm thick
 FIXGLAS9 for slabs more than 9 cm thick



Ceiling fixing with skim coat



Horizontal Section



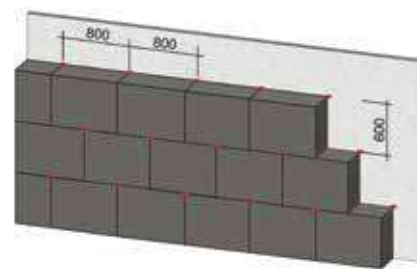
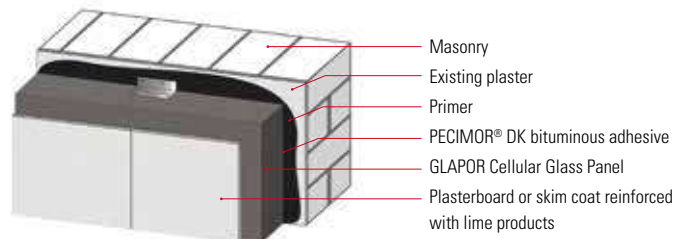
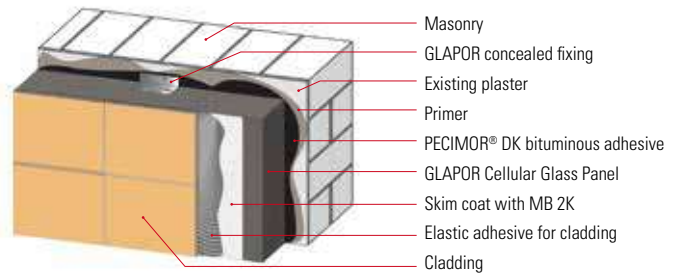
- Concealed Fixing
- GLAPOR Cellular Glass Panel
- Adhesive joints between panels

Vertical Section

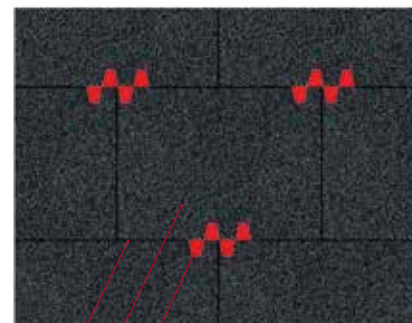


- Dowel
- Concealed Fixing
- GLAPOR Cellular Glass Panel

Wall fastening with cladding



Vertical Section



- Concealed Fixing
- GLAPOR Cellular Glass Panel
- Adhesive joints between panels

B/GLAS: tips for correct installation for under-foundation insulation

1. Create the trench.

The bottom trench level must be at least 30 cm above the maximum water table level.



2. Compact the bottom of the trench with a vibrating plate or other suitable equipment.



3. Spread the geotextile (150 g/sqm) in the trench to form a separation layer. Ensure that the sheets overlap by 10 cm. A sufficient flap should be provided at the edges to be folded over the layer of B/GLAS around the perimeter of the trench.



4. Micro-perforated pipes can be laid inside the trench for ventilation of the crawl space and others for drainage at the edge of the trench.



5. Fill the trench with B/GLAS granulate. If the material is supplied in bulk, it can be laid by unloading the entire contents of the lorry directly at the point of use.

If supplied in big-bags these must be lifted with a crane, bulldozer, etc. and emptied by manually opening the lower discharge valve.

6. Spread and level the layer of B/GLAS granules evenly using a mechanical shovel or manually with a shovel and rake. It is advisable to carry out this work in reverse order to avoid having to treat the material already laid.



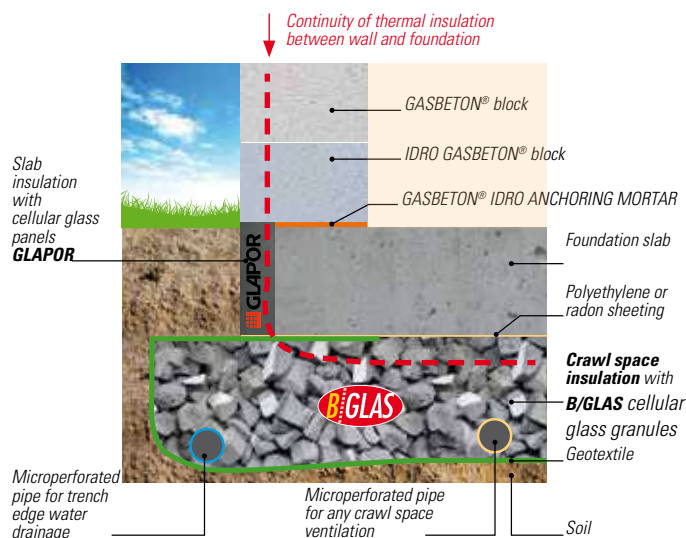
7. Use a vibrating plate rammer (~100-120 kg, frequency approx. 85-100 Hz, width ≥ 500 mm). Finish the operation when the material has dropped by 23%. Increasing the compression increases the material consumption and does not substantially improve the flow characteristics. The geotextile placed on the ground must be folded over the layer of B/GLAS compacted for at least 1.5 m. Cover the remaining part of the B/GLAS surface with a PE waterproofing layer (0.2 mm thick) or with 150 g/sqm geotextile, ensuring that the individual strips overlap by 10 cm.



8. Position the side formwork for containing the casting of the slab foundation by placing it on the surface of the B/GLAS.
When the casting of the foundation has cured, glue GLAPOR slabs for lateral insulation of the slab.

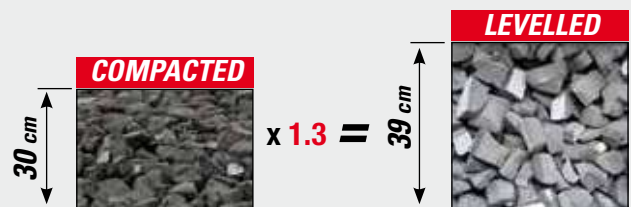


Sustainable construction solution for continuity of thermal insulation around the entire building



How to calculate the required amount of material:

To obtain compacted 30 cm:
30 cm x 1.3 = 39 cm of levelled bulk material



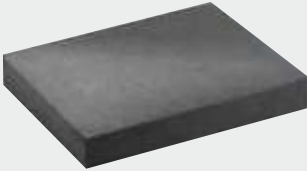
Do not compact more than 40 cm at a time.

Inversely, to calculate the final compressed thickness from the levelled bulk:
39 cm : 1.3 = 30 cm of compacted material (equal to a 23% reduction)

Characteristics:

GLAPOR

Cellular glass in slabs



Slab dimensions: 600x800 mm
Thicknesses from 40 to 140 mm
For greater thicknesses, laminated slabs can be used.

Properties	PG 600.3	PG 900.3	Unit of measure	Standard / Notes
Composition: high quality recycled glass	100	100	%	
Apparent density	130 ± 10%	135 ± 10%	kg/m ³	EN 1602
Thermal conductivity λ_D	0.052	0.052	W/mk	EN 12667/EN 12939
Specific heat	900	900	J/kgK	
Thermal expansion coefficient	9×10^{-6}	9×10^{-6}	K ⁻¹	
Water vapour resistance factor μ	∞	∞	-	Calculation = 40,000
Compressive strength σ_m	≥ 750	≥ 1000	kPa	EN 826
Average compressive strength*	0.77- 0.81	1.13- 1.19	N/mm ²	EN 826
Compressive stress (fractile 2.5 %)	0.63	0.92	N/mm ²	
Permissible compressive stress (R > 1.75, compared to 2.5 % fractile) **	≈ 0.36	≈ 0.53	N/mm ²	
Young's modulus E (Thickness = 120 mm, 2 pcs. 2 mm of bitumen)	≈ 100	≈ 140	N/mm ²	
Point load category	1.5	1	PL(P)	EN 13167
Reaction to fire	A1	A1	Class	EN 13501-1

1kPa = 0.001N/mm² = 0.0102 kg/cm²

* Reliability: 95%

** Permissible compressive strength between foundations



Cellular glass in granules



Properties	BGLAS 800	BGLAS 600	Unit of measure	Standard / Notes
Composition: high quality recycled glass	100	100	%	
Apparent density (bulk material)	135- 170	110- 130	kg/m ³	EN 1097-3
Apparent density (material compacted 1.3:1)	175- 220	140- 170	kg/m ³	
Air volume (compaction 1.3:1)	≈ 15	≈ 15	Vol.-%	
Grain size distribution	32- 63	16- 63	mm	EN 933-1
Thermal conductivity λ_D (material compacted 1.3:1)	≤ 0.083	≤ 0.078	W/mK	EN 12667/EN 12939
Specific heat	900	900	J/kgK	
Compressive strength f_c (deformation = 10%)	≥ 800	≥ 600	kPa*	EN 826
Compressive strength f_{ct} (deformation $\leq 2\%$)	≥ 370	≥ 270	kPa*	EN 826
Angle of friction	45		°	
Reaction to fire	A1	A1	Class	
Typical deformation ratio	1.3: 1	1.3: 1		
Minimum recommended thickness (material compacted 1.3:1)	150	150	mm	
Maximum levelled thickness per single compaction	39	32	cm	

1kPa = 0.001N/mm² = 0.0102 kg/cm²

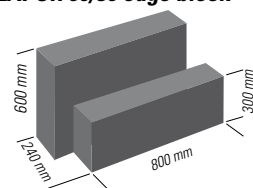
Thermal performance

GLAPOR SLABS			THICK. B/GLAS GRANULATE		B/GLAS 800		B/GLAS 600	
SLAB thickness	Strength R (m ² K/W)	Transmittance U (W/m ² K)	NON-compacted thickness	Compacted thickness	Strength R (m ² K/W)	Transmittance U (W/m ² K)	Strength R (m ² K/W)	Transmittance U (W/m ² K)
4 cm	0.77	1.30	20 cm	15 cm	1.765	0.567	1.875	0.533
6 cm	1.15	0.87	26 cm	20 cm	2.353	0.425	2.500	0.400
8 cm	1.54	0.65	33 cm	25 cm	2.941	0.340	3.125	0.320
10 cm	1.92	0.52	39 cm	30 cm	3.529	0.283	3.750	0.267
12 cm	2.32	0.43	52 cm	40 cm	4.706	0.213	5.000	0.200
14 cm	2.70	0.37	65 cm	50 cm	5.882	0.170	6.250	0.160

Slabs with thick. 16 mm, laminated slabs, slabs larger than standard and customised thicknesses are also available on request. Availability, times and costs will be communicated on request by writing to commerciale@bacchispa.it

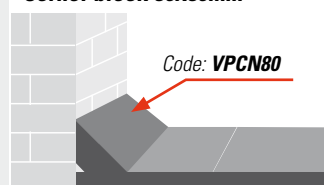
Special products on request:

GLAPOR 60/30 edge block



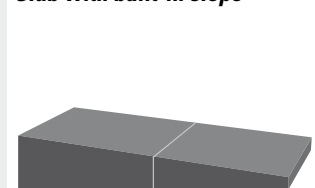
Allows for lateral thermal insulation of slab foundations. Code: **VPSPE6030**

Corner block 80x80mm



Suitable for reinstalling waterproofing sheathing laid on GLAPOR panels on masonry

Slab with built-in slope



Dimensions 80x60 cm with slope on request according to the project (minimum thickness 30 mm)

Breathable natural origin insulating materials:

for a healthy environment and consistent energy savings that last.

• Only natural raw materials

B/SANA, B/ISOLA and B/TERMO panels are mainly made of natural raw materials such as silica sand and lime. They are therefore naturally bactericidal, free of elements harmful to health and very breathable.

Sand and lime guarantee a solid, easily workable structure, while the air contained in the microporosity gives the panel light weight and a high insulating power.

• Certified Healthiness

Used in Bio-architecture and recommended for living comfort, B/ISOLA and B/TERMO panels are certified by IBR Institut für Baubiologie Rosenheim (Institute for Bio-architecture Rosenheim).



Our panels contain no petrochemical synthesis materials and other elements that are harmful to health. Furthermore, once applied, they do not emit any pollutants/VOCs.

• Safety without Compromise

In addition to being healthy and natural materials, B/TERMO, B/ISOLA and B/SANA are totally non-combustible and cannot be attacked by mould or animals. This not only means more safety for people, but also protection of the investment made in energy efficiency.

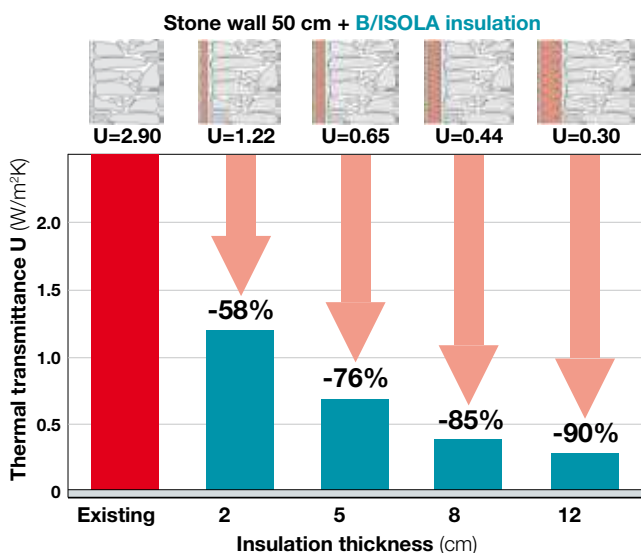
• Reducing costs naturally

The need to reduce energy consumption in buildings stems from:
 - The ever-increasing costs of the energy sources used
 - The need to protect our planet from unsustainable exploitation of resources

B/ISOLA and B/TERMO make it possible to reduce air conditioning consumption and, consequently, energy expenditure by using natural and environmentally sustainable materials.

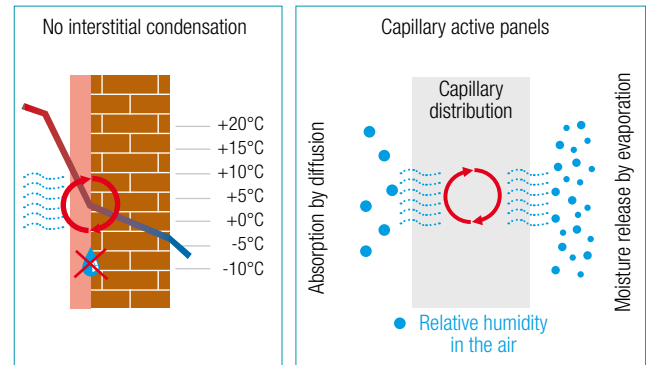


Sand + Air + Lime = Natu





Interior insulation, moisture regulation and well-being.



• Interior insulation without danger of condensation

Unlike non-breathable insulation, our solutions avoid the formation of interstitial condensation and can therefore be installed, even indoors, without a vapour barrier or retarder.

• Capillary active and hygro-regulating panels

The open structure is able to absorb large amounts of moisture in the form of vapour by diffusion. Capillarity in turn favours a dynamic distribution of moisture in the material without it losing its insulating properties.

This great dynamic capacity means that the absorbed moisture is also released quickly, depending on the airiness of the room or when the moisture content in the air decreases.

The result is the balancing of humidity and heat in a completely natural way within the rooms.

• Why is it better to insulate houses from the inside with natural materials?

Insulating your home from the inside is easier and more straightforward. With our panels you achieve a perfect balance of internal humidity and a marked improvement in living comfort.

The choice of mineral materials, such as B/TERMO and B/ISOLA, makes it possible for you to avoid the use of chemicals and plastics, as well as creating a fire-resistant insulating layer, making the rooms safer in case of fire.

Healthiness of Living.



Features of the material:



The special structure consisting of millions of micropores gives these materials **excellent thermal insulation power** (conductivity values of up to 0.04 W/mK) and extremely light weight (minimum density of 100 Kg/m³) with consequent advantages in terms of workability.



Consisting of natural raw materials such as sand and lime, produced with water and natural blowing agents, these panels are an excellent solution for green building projects. The absence of hazardous or petrochemically derived substances makes them healthy and suitable for total recycling. The absence of fibres improves operator safety during cutting and laying.



These mineral insulating panels are **fire resistant** (non-flammable, Euroclass A1) and **do not develop toxic gases during a fire**, as is the case with most common insulations, making them particularly suitable for applications in highly crowded environments, public places such as hospitals and schools.



Thanks to their natural composition, these panels are particularly **resistant to chemicals** and **insect attack**, and **do not decay over time even in very humid environments**.



Ease of installation is ensured by the possibility of easily making cuts to size and shaping the edges with normal cutting tools, regularising the surface with simple trowels and making traces in the thickness of the panel.

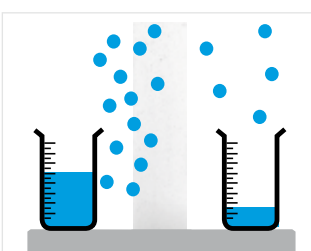
The **non-deformable and solid structure** of the material facilitates installation and improves its stability over time.



Interior insulating panels are able to act as **moisture regulators in the wall** allowing the creation of "**interior insulation cladding**" without a vapour barrier. They are capillary materials and at the same time open to vapour diffusion, thus preventing the formation of interstitial condensation towards the existing wall. They offer high breathability and are available in two variants, one water-repellent for outdoors and one adsorptive for indoors.



"Health and well-being live in a beautiful, healthy home!"



The open-cell structure of the material and its compactness give the panel the ability to **reduce indoor reverberation** when applied to the ceiling without shaving, as is usually the case in plant rooms or underground car parks.

The resulting benefits:

For builders



Ease of installation and finishing



- Thanks to the workability of the material and its solid, non-deformable structure, producing high-quality work is quick and easy

No danger in handling material



- The absence of potentially harmful fibres allows these materials to be handled, cut and processed without any health hazards

Complete system



- Materials can be supplied complete with bonding, smoothing and finishing mortars, as well as other necessary accessories

Minimal disposal costs



- Thanks to the easy shaping of the materials, waste is reduced to a minimum

For the inhabitants



Healthy, breathable living



- Merged into one "Natural Savings" thanks to insulation with natural materials, your home is healthy and comfortable"

More solidity and durability



- The insulation is as solid as masonry, does not "sound hollow" as with other systems. In addition, the performance is long-lasting.

Safety



- Being non-combustible (Euroclass A1 reaction to fire, the best), they do not spread flames, do not burn and reduce the risk of fire spreading. Moreover, they do not emit toxic fumes even in the event of fire.

Resistant to mould, rodents and insects



Breathable, durable and environmentally friendly thermal insulation cladding



60 x 38 cm



$\lambda=0.042$
W/mK



Mineral insulating panel made of calcium silicate hydrates, non-flammable, low absorption, fibre-free, made of natural raw materials, suitable for external and internal insulation.

Areas of application. B/TERMO is suitable:

- For external or internal insulation cladding (for external cladding follow the instructions contained in the manufacturer's ETA);
- To thermally insulate the soffits of cellar and garage floors or other unheated rooms, even left exposed;
- To thermally insulate thermal bridges from the outside in cases where walls are built with GASBETON® single-layer solutions.

Characteristics:

- Low capillary absorption;
- Vapour-permeable; breathable;
- Non-flammable;
- Easily workable;
- Lightweight;
- Insulating;
- Recyclable;
- Environmentally friendly raw materials and low environmental impact production, recommended for green building;
- Healthy as it has almost zero emissions of VOCs and substances harmful substances for the body.

Packaging:

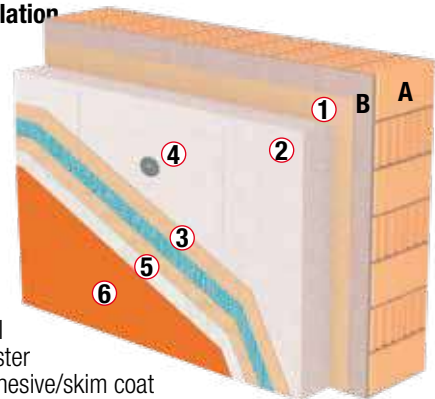
The panels are supplied in packages containing a variable number of pieces from 3 to 12 depending on thickness, placed on wooden pallets.

See the table below for details:

Panel thickness	Panels per package	Packages per pallet	Package	Pallet
5 cm	12	12	2.736 m ²	32.832 m ²
6 cm	10	12	2.280 m ²	27.360 m ²
8 cm	7	12	1.596 m ²	19.152 m ²
10 cm	6	12	1.368 m ²	16.416 m ²
12 cm	5	12	1.140 m ²	13.680 m ²
14 cm	4	12	0.912 m ²	10.944 m ²
16 cm	3	12	0.684 m ²	8.208 m ²
18 cm	3	12	0.684 m ²	8.208 m ²
20 cm	3	12	0.684 m ²	8.208 m ²



External insulation cladding



- A. Existing wall
- B. Existing plaster
- 1. MYKOLL adhesive/skim coat
- 2. B/TERMO insulating panel
- 3. MYKOLL reinforced skim coat with mesh
- 4. Dowels
- 5. Primer
- 6. Breathable decoration/plaster

Complements: see following pages for details



MYKOLL
Glue and skim coat for mineral insulating systems



Mesh Certified
for reinforced skim coats

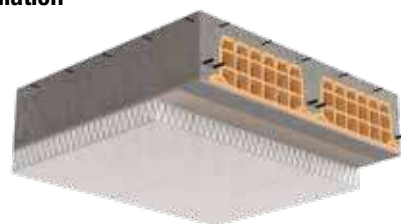


Fixing **dowels**



Dowel cover **washers**

Slab insulation



Ceiling application

Healthy interior insulation without vapour barrier



60 x 38 cm



$\lambda=0.040$
W/mK

Mineral insulating panel made of calcium silicate hydrates, non-flammable, hydrophilic, fibre-free, made of natural raw materials, specifically for interior insulation of buildings without vapour barrier.

Areas of application. B/ISOLA is suitable:

- To thermally insulate perimeter walls and the soffit of cold floors from the inside with a breathable and highly hygroscopic material (use B/TERMO outdoors);
- To minimise the risk of mould growth;
- To reduce the formation of surface condensation.

Characteristics:

- Capillary active (absorbs and disposes of interstitial moisture);
- Vapour-permeable; breathable;
- Inhibits the formation of fungi and microorganisms;
- Insulating;
- Non-flammable;
- Fibre-free;
- Fully recyclable;
- Environmentally- environmentally friendly production using biological expanders (not aluminium-based), suitable for green building;;
- Environmentally friendly, biologically harmless and healthy as attested by the prestigious German institute IBR.

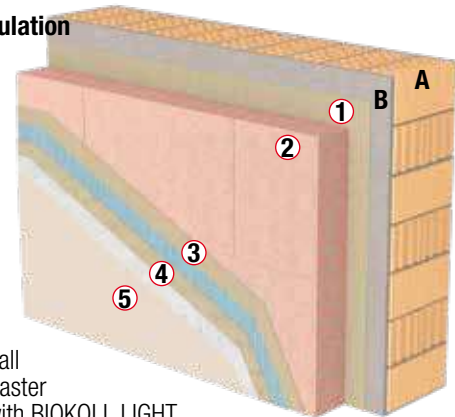
Packaging:

The panels are supplied in individual packages containing a variable number of pieces from 3 to 12 depending on thickness, and the packages are placed on wooden pallets. See the table below for details:

Panel thickness	Panels per package	Packages per pallet	Package	Pallet
5 cm	12	12	2.736 m ²	32.832 m ²
6 cm	10	12	2.280 m ²	27.360 m ²
8 cm	7	12	1.596 m ²	19.152 m ²
10 cm	6	12	1.368 m ²	16.416 m ²
12 cm	5	12	1.140 m ²	13.680 m ²
14 cm	4	12	0.912 m ²	10.944 m ²
16 cm	3	12	0.684 m ²	8.208 m ²
18 cm	3	12	0.684 m ²	8.208 m ²
20 cm	3	12	0.684 m ²	8.208 m ²



Internal insulation cladding



- A. Existing wall
- B. Existing plaster
- 1. Bonding with BOKOLL LIGHT
- 2. B/ISOLA panels
- 3. BOKOLL LIGHT reinforced skim coat with mesh
- 4. BIOFINE ecological finish
- 5. Breathable surface decoration

Complements: see following pages for details



BIOKOLL LIGHT
Ecological lime-based adhesive and skim coat



Mesh
for reinforced skim coats

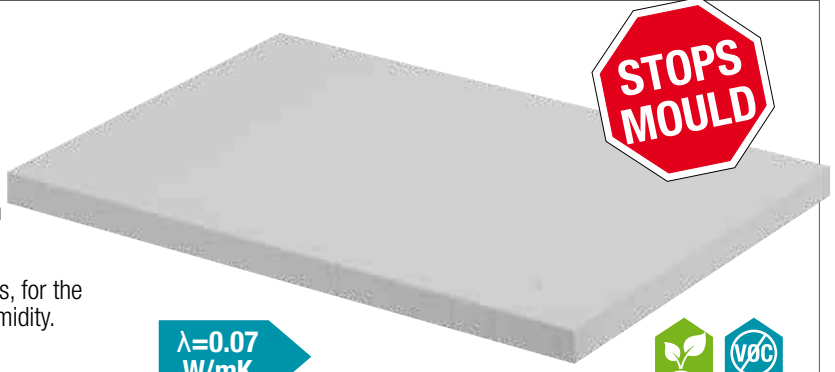


Lime-based **bio-finish**, fibre-reinforced

Definitive solution to mould problems caused by excess humidity



50 x 33 cm
Thick. 2 or 2.5 cm



Lightweight calcium silicate panel for indoor applications, for the elimination of surface mould and regulation of room humidity.

Areas of application. B/SANA is suitable for:

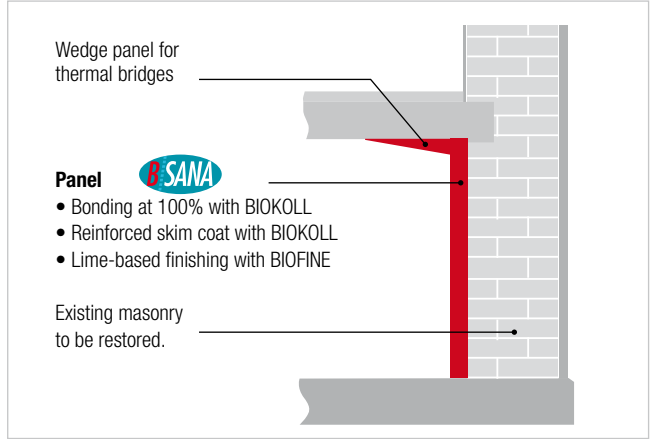
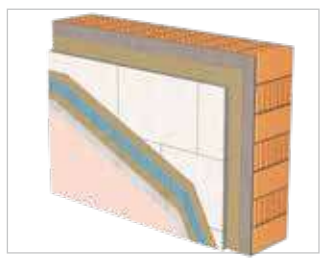
- Inhibiting the formation of mould on masonry;
- Absorbing excess moisture from indoor air;
- Insulating external masonry from the inside without a vapour barrier;
- Insulating thermal bridges from the inside;
- Establishing a healthy and comfortable indoor microclimate.

Characteristics:

- Composed of calcium silicate reinforced with cellulose;
- High alkalinity prevents the development of mould;
- High vapour permeability enables re-evaporation;
- Good thermal insulation raises surface T;
- Low weight;
- Non-combustible (class A1);
- Monolithic and isotropic structure.

The presence of mould in some rooms such as kitchens and bathrooms is mainly due to two reasons: high relative humidity values in the air (due to poor air exchange) and at the same time low wall surface temperatures (especially at thermal bridges). By applying B/SANA to the walls of these rooms, both of these risk factors can be avoided and, together with the high alkalinity of the calcium silicate, it can be ensured that mould will not grow back over time. Lime paints are recommended for BIOFINE finishing.

$\lambda=0.07$
W/mK









Anti-mould spray + **Adhesive and skim coat** + **Calcium silicate mineral panel** + **Skim coat mesh** + **Bio finish**



Technical features:



B/TERMO is a non-flammable, fibre-free, mineral insulating panel made from natural raw materials for internal and external insulation cladding, for ceiling insulation and for the correction of thermal bridges in applications in which GASEBETON® cellular concrete blocks are used for perimeter curtain walls.



Technical data	
Material:	hydrated lime, silica
Thermal conductivity ($\lambda_{10,av}$):	0.042 W/mK (EN 12667)
Colour:	white
Standard slab dimensions:	60 x 38 cm (= 0.228 m ²)
Tolerances:	± 2 mm
Slab thicknesses:	5/6/8/10/12/14/16/18/20 cm
Reaction to fire Euroclass:	A1, non-flammable
Density:	101 < ρ < 130 kg/m ³
Compressive strength:	0.360 N/mm ² (3.6 Kg/cm ² = 360 KPa)
Tear resistance of MYKOLL on B/TERMO:	0.13 N/mm ² (1.3 Kg/cm ² = 130 KPa)
Consumption:	approx. 4.5 slabs per m ²
pH value:	9.5
Water absorption by part. immers. 24h:	< 0.5 Kg/m ²
Vapour diffusion resistance coeff.:	5

1 KPa = 1000 N/m² = 0.01 Kg/cm²

100 KPa = 1 Kg/cm²

(average values, small deviations are possible due to the use of natural raw materials)



B/ISOLA is a non-flammable, mineral insulating panel for indoor applications only, without vapour retarder, hydrophilic, fibre-free, made from natural raw materials, which solves the thermal insulation problems of buildings in all those cases where it is not possible to install thermal insulation cladding outside.



Technical data	
Material:	hydrated lime, silica
Thermal conductivity ($\lambda_{10,av}$):	0.040 W/mK (EN 12667)
Colour:	Pink / Light terracotta
Standard slab dimensions:	60 x 38 cm (= 0.228 m ²)
Dimensional tolerances:	± 2 mm
Slab thicknesses:	5/6/8/10/12/14/16/18/20 cm
Reaction to fire Euroclass:	A1, non-flammable
Density (ρ):	85 < ρ < 110 kg/m ³
Compressive strength:	0.15 N/mm ² (1.50 Kg/cm ² = 150 KPa)
Tear resistance of MYKOLL on BISOLA:	0.1 N/mm ² (1 Kg/cm ² = 100 KPa)
Moisture content at 23°C and 80% (U):	Um,80 = 4.2 M%, Uv,80 = 0.4 V%
Quantity per sqm of surface:	approx. 4.5 slabs per m ²
pH value:	9.5
Water absorption coefficient (w):	13.9 kg/m ² h ^{0.5}
Vapour diffusion resistance coeff. (μ):	3-7

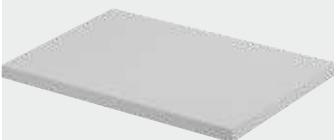
1 KPa = 1000 N/m² = 0.01 Kg/cm²

100 KPa = 1 Kg/cm²

(average values, small deviations are possible due to the use of natural raw materials)



B/SANA is a calcium silicate and cellulose fibre-based insulating panel for interior applications, which definitively solves problems of mould on walls and is able to lower the relative humidity level in rooms thanks to its high hygroscopic power.

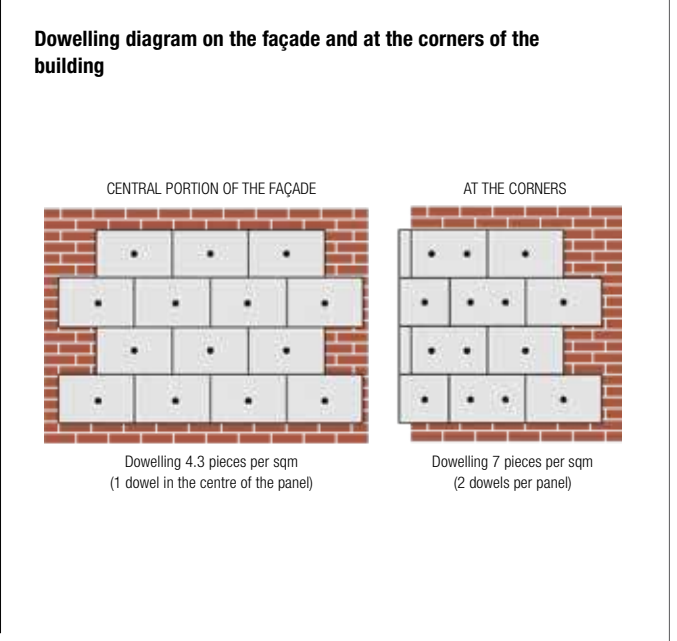
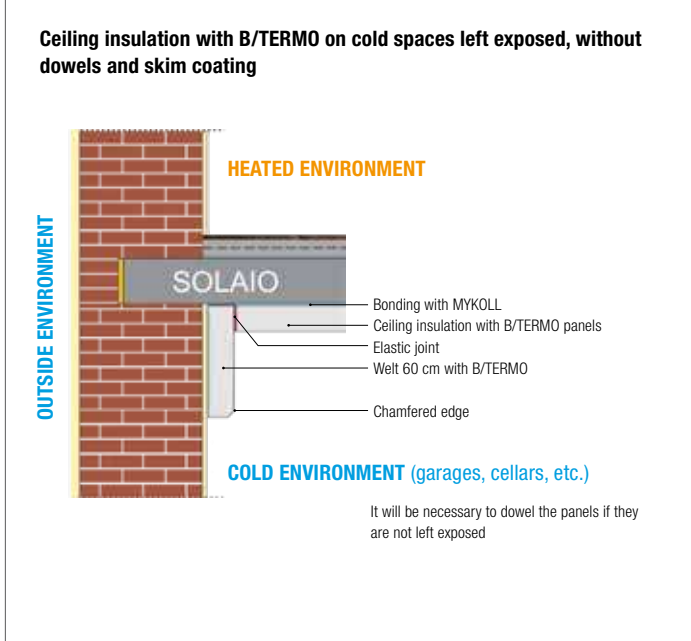
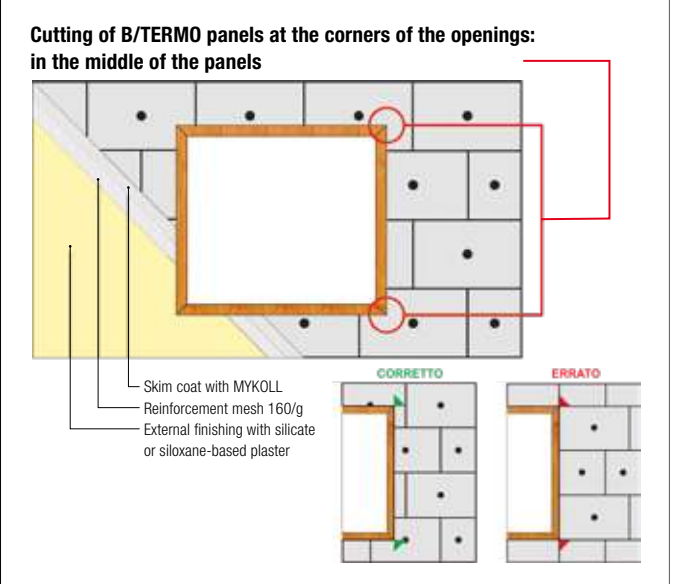
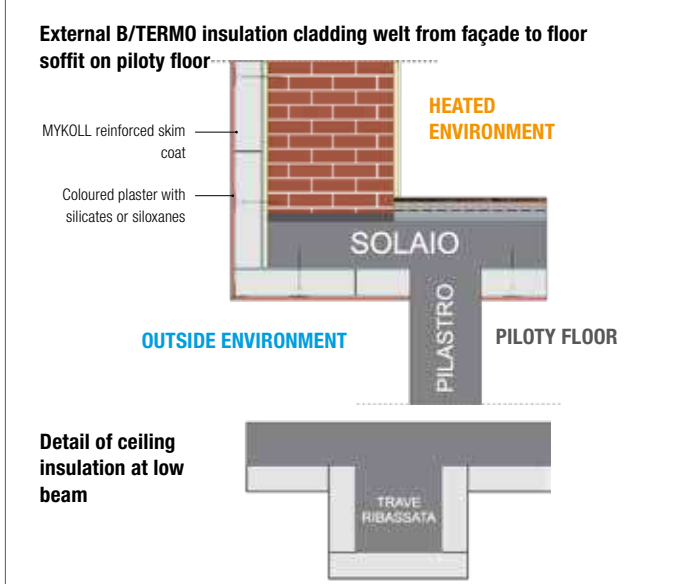
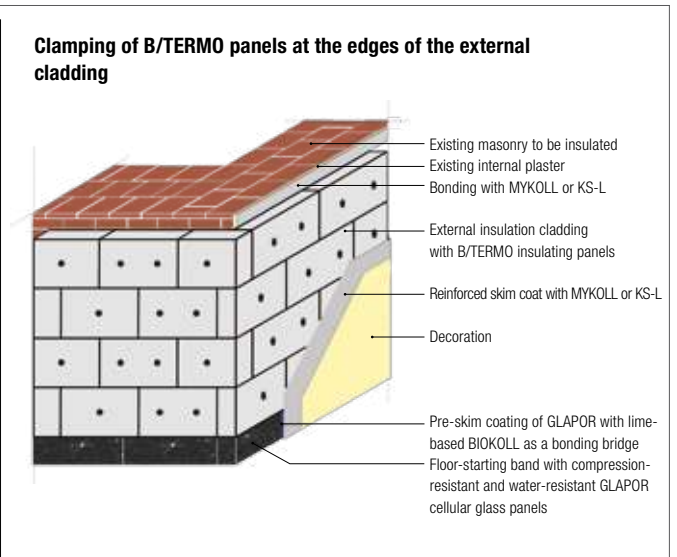


Technical data	
Material:	Calcium silicate, cellulose fibre
Thermal conductivity ($\lambda_{10,av}$):	0.07 W/mK
Colour:	White
Standard slab dimensions:	50 x 33 cm (= 0.165 m ²)
Number of panels per package:	from 6 to 8 depending on thick. (from 1 to 1.33 sqm/package)
Dimensional tolerances:	± 2mm
Standard thicknesses:	2 / 2.5 cm
Thickness tolerances:	± 1mm
Reaction to fire Euroclass:	A1, non-flammable
Dry density:	285 kg/m ³ ± 5%
Compressive strength:	> 2 N/mm ² (>20 Kg/cm ²)*
Tear resistance of MYKOLL on B/SANA:	0.23 N/mm ² (2.3 Kg/cm ²)*
Vapour diffusion resistance (μ):	< 5
Water absorption after 24h:	26 Kg/sqm (3-4 times its own weight)
Porosity:	approx. 90%
pH value:	> 10
Specific heat:	1000 J/KgK

1 KPa = 1000 N/m² = 0.01 Kg/cm²

100 KPa = 1 Kg/cm²

Executive diagrams for **external insulation cladding** and **ceiling insulation**



Instructions for external insulation cladding with B/TERMO panels

1. Spreading the adhesive on the rear face of the panel:

spread the MYKOLL adhesive on the back of the panel for full coverage, horizontally, with a notched trowel with 20x15 mm round teeth.



2. Panel bonding:

rest the panels on the wall, applying light pressure and then sliding them diagonally for 2-3 cm until they match those previously laid. If there is no support, prevent sliding with a provisional support.



3. Laying with staggered vertical joints:

when laying insulating panels, it is important to stagger the vertical joints by 20-30 cm. Absolutely avoid aligned vertical joints.

Do not apply glue in vertical joints, which must remain dry.



4. Cutting to size and shaping:

panels can be cut easily with a cutter or a fine-tooth saw, using a square template. When cutting, the panels should rest completely on a flat surface.



5. Panel on opening edge:

at the edges of the openings, shape the panels in an L-shape and then glue them to the wall before the full panels. Avoid joining panels with the joint at the edge of the opening.



6. Laying panels on parapets:

at building parapets or openings (hollow sections) it is essential to butt panels together, alternating the panels to be extended between the various rows. Avoid creating aligned vertical joints.



7. Drilling dowel holes:

at least 24 hours after gluing, drill a hole in the centre of each panel. Double the holes near the edges of the building.

Use a drill bit suitable for the substrate, size and geometry of the dowel.



8. Dowel insertion:

Use ETAG 014 compliant poppet dowels with steel screw insert. Insert the dowel manually until the plate is pushed into the panel. Lightly hammer in case of difficulty.



9. Screwing in the dowel:

Tighten the screw inside the dowel using an electric screwdriver fitted with an insert suitable for the screw head. Do not allow the dowel to rotate in its seat. The dowel must adhere perfectly to the surface of the panel.



10. Positioning corner protectors:

Fix PVC corner protectors fitted with glass-fibre mesh by applying MYKOLL adhesive/skim coat compound, then level with a trowel or smooth trowel. Where necessary, use corner protectors with drip edge.



11. Applying the first skim coat:

Once the adhesive has matured (at least 24 hours) spread the MYKOLL skim coat on the B/TERMO insulating panels with a 10 mm square toothed trowel. In case of hot weather, shade the façade and moisten the panels.



12. Laying the reinforcement mesh:

Spread the warp-knitted glass-fibre mesh (150-160 g/sqm) over the first coat of adhesive immediately after laying. Lay the mesh sheets vertically, ensuring an overlap of approximately 10 cm.



13. Burying the mesh in the skim coat:

Once the mesh has been laid, after checking its verticality and overlaps, proceed by means of a smooth trowel to bury it in the MYKOLL adhesive until it has saturated the mesh.



14. Applying the second skim coat:

Apply a further layer of MYKOLL wet-on-wet with a smooth trowel until the mesh is completely covered; the mesh must be positioned in the upper 1/3 of the total skim coat thickness. The total thickness of the skim coat must be 6-7mm.



15. Coloured thick cladding:

Finish the cladding with a minimum 1.5 mm grain size, acrylic-siloxane or silicate, anti-mould and anti-algae, vapour permeable and highly water-repellent, with reflection index >20, W2 and $\mu < 30$.



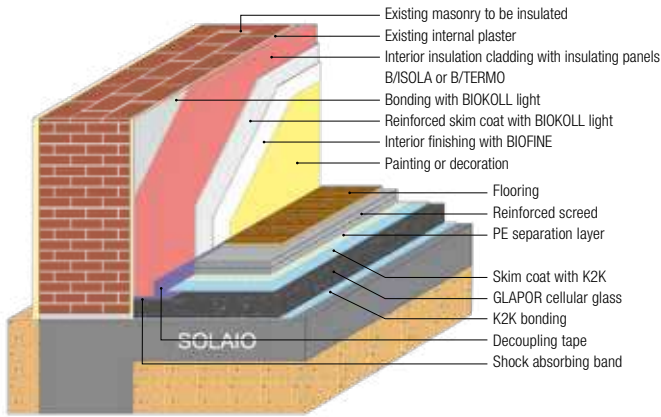
16. Façade fixings:

Loads can be fixed to the façade using suitable fixing systems that are anchored to the wall substrate and are possibly thermally broken.

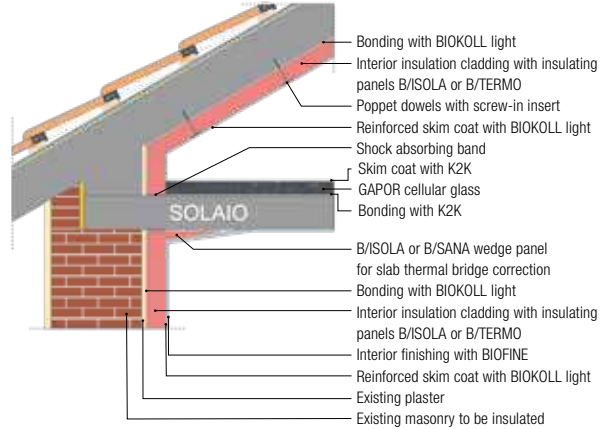


Executive diagrams for interior insulation

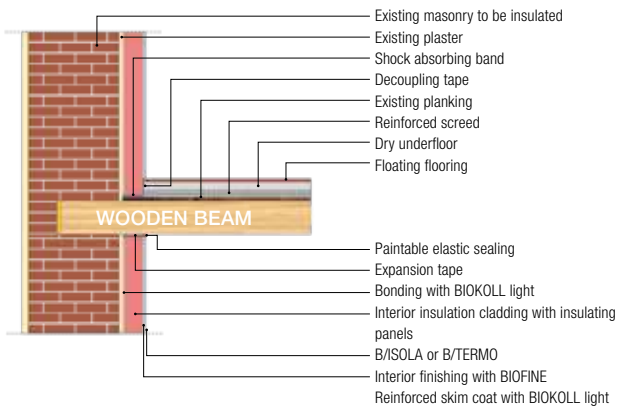
Vertical wall insulated from the inside and ground floor slab



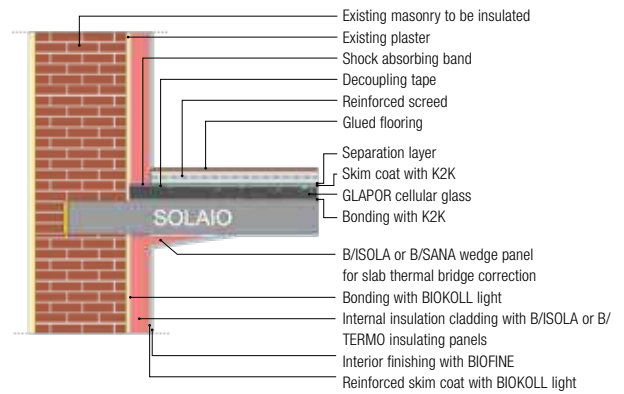
Interior insulation of external wall and inclined roof soffit



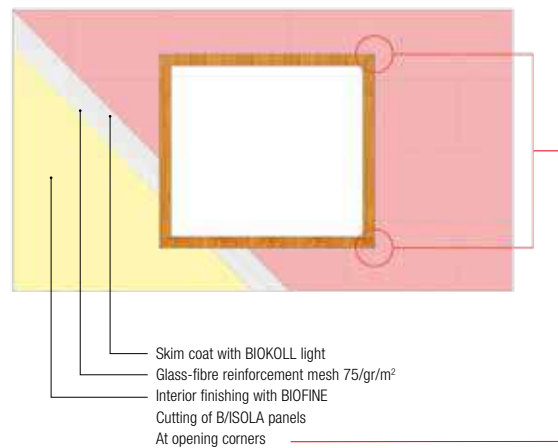
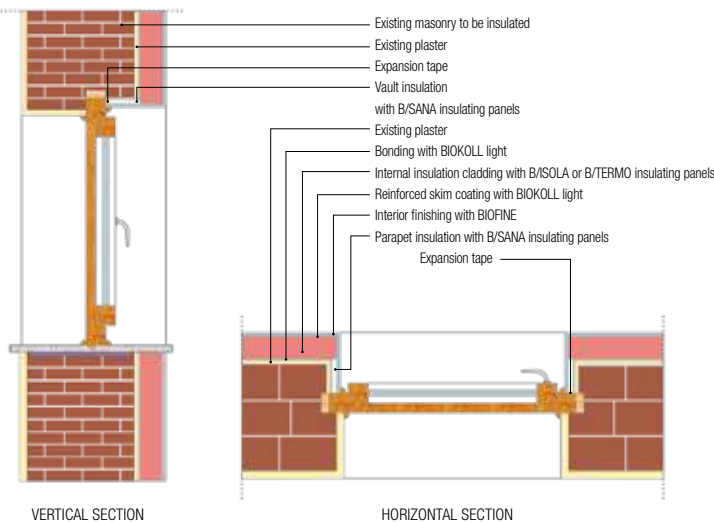
Interior insulation of external wall at wooden floor slab



Interior insulation of external wall at reinforced concrete slab



Interior insulation of external wall at window and door openings



Laying instructions for interior insulation

1. Supply of insulating panels:

The panels are supplied on pallets, divided into bundles protected by shrink wrap which facilitates handling, reduces the possibility of damage and protects them from rain or dirt.



2. Supply of complements:

MYKOLL or BOKOLL adhesive/skim coat mortar is supplied in paper sacks. BIOFINE finish is supplied in sacks stored inside plastic buckets.



3. Laying desolidarising strips:

Before laying the insulating panels, it is advisable to place a strip of compressible material on the ground to act as a decoupling and elastic joint.



4. Preparing the adhesive:

Mix MYKOLL or BOKOLL with clean water using an electric mixer at low speed, allow the mixture to rest for 10 minutes and then mix again.



5. Cutting the panels:

The panels can be cut easily with a cutter or a fine-tooth saw, using a square template. When cutting, the panels should rest completely on a flat surface.



6. Systems:

It is advisable to make system tracks in the masonry (not in the panels) and seal them before applying interior insulation. It is possible to drill or cut panels to accommodate system boxes.



7. Joint around joists and thresholds:

Leave a small joint around the wooden beams and insert an expansion tape then apply airtightness tape.



8. Spreading the adhesive on the panel:

Spread the adhesive on the back of the panel for full coverage, proceeding horizontally, using a notched trowel with 5 or 10 mm teeth depending on the planarity of the substrate.



9. Panel bonding:

Rest the panels on the wall, applying light pressure and then sliding them diagonally for 2-3cm until they match those previously laid. Offset the vertical joints by 30cm.



10. Insulation opening intradoses:

Insulate the parapets of window and door openings with B/ISOLA or B/TERMO (minimum thickness 5cm) or, if there is no space, B/SANA in 2 or 2.5cm thickness can be used.



11. Surface sanding:

If some panels are not perfectly aligned and flat, it is possible to smooth the surface using the Gasbeton system abrasive trowel.



12. Applying the first skim coat:

Once the adhesive has matured (at least 24 hours) spread the skim coat MYKOLL or BOKOLL on the B/ISOLA or B/TERMO insulating panels using a notched trowel with 5mm teeth. In hot climates, moisten the panels.



13. Laying the reinforcement mesh:

Spread the glass-fibre mesh (minimum 75gr/sqm) over the first coat of adhesive immediately after it has been laid and press it down with a smooth trowel until the adhesive has saturated the mesh.



14. Reinforcing corners:

In addition to the skim coat reinforcement mesh, it is advisable to place a portion of mesh, approximately 30x40cm, rotated by 45°, at the upper and lower corners of the openings.



15. Applying the second skim coat:

Apply a further layer of MYKOLL wet-on-wet with a smooth trowel until the mesh is completely covered; the mesh must be positioned in the upper 1/3 of the total skim coat thickness.



16. Applying BIOFINE finish:

Once the reinforced skim coat has dried (approx. 20 days), apply the finish with BIOFINE lime base with a smooth metal trowel in crossed coats in 1-2 mm thickness. The product is supplied as a ready-to-use paste.



Complements:

Glue and skim coat for mineral insulating systems



Areas of application: suitable for bonding and levelling B/ SANA, B/ISOLA and B/TERMO mineral insulating panels
Composition: premixed powder composed of cement, limestone aggregates, additives, resins and cellulose.
Characteristics: multi-purpose product, applicable by hand or machine, both as an adhesive and skim coat compound, characterised by high coverage, good spreadability, hardening with low tension on insulating panels.
Technical Data: white colour, density 1450 Kg/m³, grain size < 0.8 mm, compressive strength 10 N/mm²
Consumption: minimum thickness for bonding 3 mm - minimum thickness for skim coating 4 mm - Consumption approx. 1.4 Kg/m²/mm
Packaging: 25 Kg paper sacks

Ecological glue and skim coat for GSBETON® mineral insulating panels and masonry



Areas of application: suitable for gluing and levelling B/ SANA, B/ISOLA, B/TERMO mineral insulating panels and for performing internal reinforced skim coating on autoclaved aerated concrete masonry
Composition: premixed powder NHL natural hydraulic lime-based, selected light aggregates, reinforcement fibres and additives to improve workability and adhesion to the substrate
Characteristics: multi-purpose, easily workable, environmentally friendly, recyclable, breathable and healthy product
Technical Data: beige colour, density 1200 kg/m³, grain size < 1.25 mm, compressive strength 6 N/sqmm
Consumption: minimum thickness for bonding 3 mm – minimum thickness for skim coating 4mm - consumption approx. 1.2 kg/m²/mm
Packaging: 20 kg paper sacks

Lightweight skim coat mesh



Areas of application: lightweight finishing and skim coat, ideal for preventing the formation of cracks and crazing in skim coating and at joints between substrates of different materials.
Composition: glass-fibre
Characteristics: fibre mesh impregnated with anti-alkaline resins
Technical Data: mesh 5x5 mm - density from approx. 75 to 160 g/sqm
Consumption: 1.1 m² /m²
Packaging: 50m rolls

Mesh for ETAG004 certified insulation cladding



Glass-fibre mesh 4x4.5 mm mesh density 160 g/sqm approx. for skim coating and cladding.
Use: Mesh with **anti-alkaline treatment** for external skim coats and in thermal insulation systems as reinforcement of the skim coat layer in order to absorb and evenly distribute the mechanical stresses to which the system may be subjected. Ensures excellent surface finish.

Dowels



for fixing calcium silicate insulating panels. Available in different lengths to suit the thickness of the insulation to be fixed. Each 100-pack comes with an insert for screwing in the screw.

B/TERMO washers



for covering dowels embedded in insulating panels. As they are made of the same material as the B/TERMO panels, they allow for perfect continuity of the material on the façade.
 Diameter 6.8 cm - Thickness 1.6 cm
 Supplied in a 200-piece box

Lime-based bio-finish, fibre-reinforced



Areas of application: the most suitable solution for finishing the reinforced skim coat executed with MYKOLL on B/SANA and B/ISOLA indoor mineral panels.
Composition: ready-to-use air paste product based on air lime, selected aggregates, natural fibres and water.
Characteristics: highly breathable bio-finish with high workability and resistance characteristics. The dense weave of special fibres facilitates the formation of a uniform and compact surface, ready for the subsequent application of breathable paints, preferably lime-based.
Technical Data: white colour - density 1600 Kg/m³ - grain size < 0.6 mm - pH value 12
Consumption: maximum applicable thickness 2 mm - consumption approx. 2-3 Kg/m²
Packaging: 20 Kg plastic buckets

Wedge panel for thermal bridges



Areas of application: wedge-shaped B/SANA restoration panel for internal insulation of thermal bridges (corners between orthogonal walls, corners between wall and floor). Can also be used in combination with B/ISOLA insulating panel.
Composition: calcium silicate reinforced with cellulose
Characteristics: high alkalinity prevents the development of mould and its low conductivity also makes it suitable as thermal insulation. Its high hygroscopic power allows it to absorb large amounts of moisture and its structure open to vapour diffusion facilitates re-evaporation.
Technical Data: white colour - variable thickness from 3 to 0.3 cm - slab dimensions 100 x 50 cm. For the remaining technical data, please refer to the B/SANA table.
Consumption: 1.05 ml/ml
Packaging: supplied in packages of 20 pc/pack boxes

MUFFY Anti-mould solution



Areas of application: suitable for removing mould from walls both in civil and industrial environments, as a preparatory operation to the application of the B/SANA cycle.
Composition: water, alcohol, surfactants, ammonium q., chlorides
Characteristics: breaks down mycelia and spores in the porosity of wall finishing materials, does not film and has an antibacterial effect.
Technical Data: liquid, achromatic, characteristic odour.
Consumption: approx. 0.1-0.15 l/m² depending on the degree of infestation
Packaging: 500 ml bottle with spray dispenser

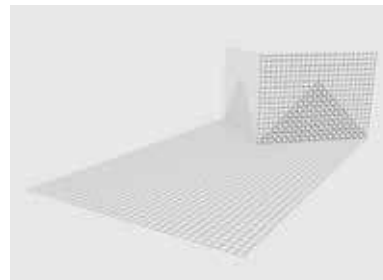
Accessories for laying insulation cladding:



PVC corner piece with mesh for vertical edges

Code: **ANGRET**

PVC corner protector with glass-fibre mesh. Length 250 cm, can be cut to length with a cutter.



3D angular mesh for reinforcing upper edges of openings

Code: **RETE3D**

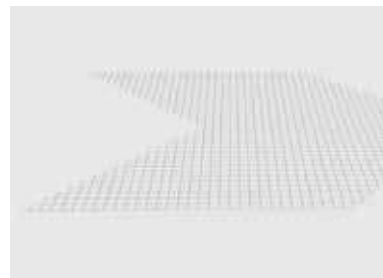
Pre-formed 10x20 cm glass-fibre corner mesh for additional reinforcement at the corners of window and door openings. Dimensions 10x20x30 cm



PVC corner protector with mesh and drip edge

Code: **ANGGOC**

PVC corner protector with glass-fibre mesh. The plastic profile remains visible, it is protected by a strip to be removed after the façade has been painted. Length 250 cm, can be cut to length with a cutter.



2D mesh for reinforcing opening edges

Code: **RETE2D**

Pre-cut arrow-shaped glass-fibre mesh for additional reinforcement at the corners of window and door openings. Dimensions 33x50 cm



PVC end profile with mesh

Code: **PROTER**

PVC linear profile and glass-fibre mesh. The thickness of the PVC lip is 6mm to be compatible with the thickness of the skim coat applied on B/TERMO. Length 200 cm, can be cut to length with a cutter.



0.15 kN medium load element fixing support with cutter

Code: **FIXFRESA**

Kit consisting of 10 high-density EPS cylindrical supports, 70 mm diameter and thickness, with improved adhesion outer surface, a 70 mm diameter nylon core drill and glue. Packed in boxes.



Standard PVC window profile with mesh

Code: **PROFIN**

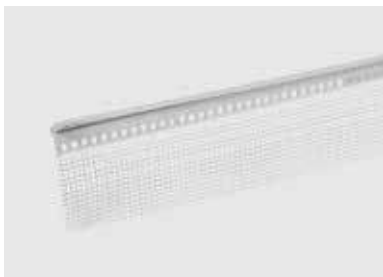
PVC profile with PE sealing tape and glass-fibre mesh. Equipped with a removable adhesive protective flap. Length 240 cm, can be cut to length with a cutter.



Self-expanding adhesive joint sealing tape

Code: **NASTRISO**

Pre-compressed, self-adhesive polyurethane foam sealing tape. Width 15 mm, thickness 2 mm with possibility of expansion up to 6 mm. Roll length 7.5 m.



PVC under-sill profile with mesh

Code: **PRODAV**

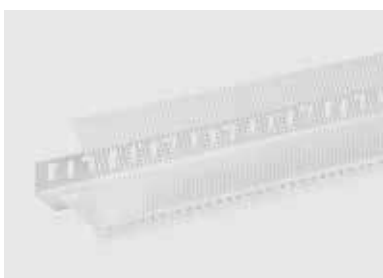
PVC under-sill profile with PE sealing tape and glass-fibre mesh. Length 240 cm, can be cut to length with a cutter.



Support for fastening external doors on insulation cladding

Code: **FIXANTE12 / FIXANTE14 / FIXANTE16 / FIXANTE18**

Support elements for shutter hinges, made of rigid polyurethane foam. Dimensions 24x12.5 cm. Available thicknesses 12, 14, 16 and 18 cm.



PVC adjustable thickness starting profile kit

Code: **PROPAR18** = from 120 to 180 mm
PROPAR24 = from 160 to 240 mm

Modular system of PVC starting bases consisting of an L-profile to be fixed to the wall and an end element equipped with glass-fibre mesh and drip edge. Length 250 cm, can be cut to length with a cutter.

Download the accessories user guide:



Natural sands and aggregates for the construction industry



In the world of construction, sands are essential as they form the skeleton of mortars and concretes, giving them consistency and volume without chemically interacting with the solidification process.

- Only natural raw materials from river origin**
 Our aggregates come from the redevelopment of floodplain areas and are extracted using environmentally sustainable processes. They then undergo a series of processes such as washing, screening, cycloning, sorting, etc.



A wide range of products, for an infinite number of applications. Careful selection ensures the best grain size characteristics, while the naturally rounded shape guarantees excellent product strength.

Fine Sand
Grain size
0 - 0.6 mm

Classic Silica Sand
Grain size
0 - 2.0 mm

Granite Sand 08
Grain size
0 - 8.0 mm

Silica Casting Mix
Grain size
0 - 14 mm

Gravel 4/16
Grain size
4 - 16 mm

Stabilised mix 0/30
Grain size
6 - 12 mm



The selected grain size for high quality finishes.



Multi-purpose sand for all needs.



The ideal grain size for concrete production.



Sand for durable manufacturing.



Ideal both for draining wells and for making pathways.



The best choice for creating stable and draining pathways, courtyards or underfloors.

Draining underfloors, fills, cement mixtures and more

The most suitable material for all applications, made from unrivalled field experience

Products available in the most convenient packaging for every project:
Bag, BigBag, Bulk.



Wet natural sands and aggregates

C.A.M. sands and aggregates

Mixtures specifically designed to comply with the Minimum Environmental Criteria, obtained from natural sands of river origin and industrial aggregates (end-of-waste).



Available in bulk
Max 30 tonnes per load



C.A.M. sand 0/4

- Creation of underfloors
- Completion for cement (cis) and bituminous mixtures
- Forming of mortars, rough plasters and screeds
- Manufacturing



CE UNI EN 12620
UNI EN 13139
UNI EN 13043
UNI EN 12242

C.A.M. crushed stones 2/8

- Creation of underfloors
- Completion for cement (cis) and bituminous mixtures
- Construction of pathways and courtyards
- Manufacturing



CE UNI EN 12620
UNI EN 13043
UNI EN 12242

C.A.M. mixture 0/14

- Concrete production
- Manufacturing and underfloor construction
- Completion for bituminous mixtures



CE UNI EN 12620
UNI EN 13242
UNI EN 13043



High-grade sands for high-level processing



Carefully selected materials, which undergo careful processing; washing, sorting, drying, screening, deferralisation, to achieve various benefits: Chemically and physically, alluvial sands are ideal because they ensure:

- **Perfect compatibility with binders;**
- **Excellent mechanical strength;**
- **Appropriate particle size curves for various uses;**
- **Absence of impurities (silts, clays, soluble parts, etc.);**
- **Absolutely insensitive to frost and water.**

Our sands come from the redevelopment of floodplain areas and are extracted using environmentally sustainable processes.

Selected grain sizes and components for unparalleled quality. Careful selection ensures the best grain size characteristics, the naturally rounded shape guarantees excellent strength, while subsequent drying and deferralisation processes provide irreplaceable benefits in both construction and industry. Dried sands, deferralised sands and quartz sands.



Dried Sand 504
Grain size
0.1 - 0.45 mm



Production of finishing mortars, adhesives, plasters.

Dried Sand 510 plus
Grain size
0.5 - 1.4 mm



Special dust-free, ideal for sandblasting.

Dried Sand 530
Grain size
1.5 - 3.0 mm



Ideal for sandblasting where very high abrasion and depth is required.

A.C.S. plus Dried Quartz Sand
Grain size
0.5 - 1.4 mm



Deferritised sand for sandblasting, filtering and play areas

Crushed quartz
Wide range of grain sizes available.



High-grade aggregates for filtration and sandblasting

Spherical quartz
Wide range of grain sizes available.



High-grade aggregates for filtration and sandblasting

Sandblasting, floor grouting, filtering and play areas

The most suitable material for all applications, made from unrivalled field experience

Products available in the most convenient packaging for every project: Bag, BigBag, Bulk.



Excellent abrasive power



Great mechanical strength



Filtering capacity



Safety and naturalness



Mortars for masonry, plasters and flooring

REI 180 **CE**

Materials made with selected aggregates of natural origin, deriving from the redevelopment of floodplain areas, and specific additives to achieve the best performance according to the different applications.



PRONTOMALT **M5**

The most versatile

Class M5
Suitable for REI180 masonry

Pre-dosed bastard mortar ideal for laying load-bearing masonry also in seismic zones and non-load-bearing masonry.



READYOMALT FIBRE-REINFORCED

The most fibre-reinforced **M5**

Class M5
Suitable for REI180 masonry

Pre-dosed fibre-reinforced mortar ideal for laying load-bearing masonry also in seismic zones and for plastering thanks to fibres that improve resistance to cracking.



CEMENT MORTAR

The strongest **M10**

Class M10
Suitable for masonry and stone paving

Pre-dosed, high-strength cement mortar, ideal for laying concrete block masonry and stone paving.



PRONTOMALT FAÇADE

The most waterproof **M5**

Class M5
Water-repellent for façade masonry

Pre-dosed bastard mortar with a very low coefficient of water absorption, ideal for masonry work including load-bearing, in façade brickwork or other constructions where rainwater resistance is required.



Floor screeds



Materials made with selected aggregates of natural origin, deriving from the redevelopment of floodplain areas, and specific additives to achieve the best performance according to the indicated use.



UNDERFLOOR

The most insulating

- INSULATING - $\lambda = 0.24$ W/mK
- LIGHTWEIGHT - density 1000 kg/m³
- FAST - ceramic laying after 3 days
- VERSATILE - minimum thickness 2 cm

Underfloors



Screeds



Fillings



Pumpable lightweight thermal insulating pre-dosed screed ideal for renovation work where weight must be limited.



SAND AND CEMENT SCREED

The most widely used

Density 1800 kg/m³
Ceramic laying in 3 days

Traditional pumpable pre-dosed screed ideal for radiant screeds.



SAND AND CEMENT FIBRE-REINFORCED SCREED

The most fibre-reinforced

Density 1800 kg/m³
Ceramic laying in 3 days

Fibre-reinforced traditional pre-dosed screed that limits cracking.



MASSETTO SPRINT FAST DRYING

The fastest

Density 2000 kg/m³
Ceramic laying in 2 days

Rapid pre-dosed screed ideal for fast construction sites.



Concrete for all needs

Materials made with selected aggregates of natural origin, deriving from the redevelopment of floodplain areas, and specific additives to achieve the best performance according to the intended use.



SUPER BETONCINO

The most resistant

- Resistance Rck45;
- Waterproof;
- Resistant to seawater;
- Resistant to de-icing salt;
- Resistant to chemical aggression.

Rck 45

Waterproof, pre-dosed, non-shrinking, high-performance concrete suitable for structural use.

The ideal product for building structures subjected to heavy-duty tasks such as sidewalks, stairs, underground structures and tanks, or products placed in aggressive environments such as coastal areas, stables or chemical storage facilities.



BETONCINO CARRARMATO

The most versatile

Resistance Rck35
Density 2350 kg/m³

Pre-dosed classic concrete for structural and non-structural castings.

Rck 35



BETONCINO CARRARMATO WITH STRUCTURAL FIBRES

The most fibre-reinforced

Resistance Rck35
Inert 0-14 mm

Pre-dosed concrete, with fibre additives, suitable for structural castings.

Rck 35



BETONCINO CARRARMATO STRUCTURAL LIGHTWEIGHT

The lightest

Resistance Rck25
Density 1700 kg/m³

Lightweight, pre-dosed concrete for structural castings, ideal where the weight of structures such as slabs needs to be limited.

Rck 25



BETON SPRINT BETONCINO RAPIDO

The fastest

Resistance Rck35
Good performance already after 24 hours

Rapid, pre-dosed concrete, ideal for non-structural castings where rapid formwork removal is required.

Rck 35



Road Maintenance and Street Furniture

A complete line of products for the maintenance of roads and urban areas.



Can also be used in wet conditions Self-compacting with traffic

Class M55 - Carriageable after 4 hours



FIXXAR

High Performance Cold Asphalt

For durable repair of road surfaces from potholes and cutting for works.

- Usable in wet conditions
- Usable in all seasons
- Does not stick to tyres
- No need for primers or other products



PAVIFAST

High Performance Rapid Mortar

For laying road crowns, fixing street furniture and repairing concrete pavements.

- Excellent adhesion
- Fast setting
- High strength
- Waterproof
- Convenient packaging



Bitumen emulsion

For asphalt adhesion and maintenance purposes. Available in a ready-to-use spray can.



Mastic asphalt

High-strength two-component paste in bucket form suitable for both asphalt and concrete. Carriageable after approx. 30-60 minutes.



Cold Asphalt

Convenient and practical solution for repairing potholes on road surfaces.



Water-reactive Cold Asphalts

Maximum strength, Excellent for pavements and ramps, Cures with just water.



Pour → **Spread** → **Wet** → **Open to traffic**

REPHALT

Cold asphalt with water-reactive binders



Uses:

- Permanent repair of potholes of any extent and road cuts, including reconstruction of filler necks around manholes and manhole covers.
- Restoration of asphalt pavements.

OECOPHALT R

Cold asphalt with water-reactive binders



Uses:

- Oecophalt **0/4** mm: repair of minor abrasions, surface stripping and minor repairs in general, such as filling in around manholes or manhole covers of moderate depth
- Oecophalt **0/6** mm: permanent repair of potholes of any extent and road cuts, including reconstruction of filler necks around manholes and manhole covers
- Both are suitable for restoring asphalt pavements.

Description:

Pre-packaged cold mix for carrying out repairs on asphalt and concrete (in which case we recommend preparing the base with **BSPRAY**) in private and public contexts. Can also be applied where there is heavy traffic (municipal, provincial and state roads and motorways) and in industrial areas with heavy traffic.

Laying method:

1. Clean the surface to be treated by carefully removing any dispersed silty or dry elements.
2. Open the pack and apply REPHALT by hand to the area to be repaired, without the need for a primer or bonding coat (the use of **BSPRAY** is recommended only on concrete substrates).
3. Spray with water to trigger the catalysing and setting process.
4. Compact with tools, including hand tools.



Dry paving solutions

Sands for external dry paving with self-locking blocks, klinker and natural stones.

BACCHI's range of natural sands and aggregates includes products suitable for creating both the underfloor layers and the function of filling the joints between blocks and stones forming the paving.



DRIED NATURAL SAND

The most widely used

Suitable for joints from 2 mm

Multi-purpose calibrated dried sand ideal for dry grouting of paving blocks.



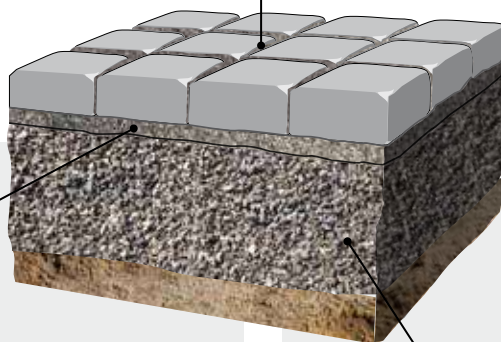
POLISABBIA

The strongest

Suitable for joints from 2 mm

Natural sand mixed with water-reactive polymer hardeners. Anti-weed, long-lasting, resistant to rain and insects, ideal for grouting paving slabs and natural stone.

GROUTING



BEDDING



MOIST NATURAL SAND 05

Accurate and versatile

Ideal for bedding

Multi-purpose moist sand with a grain size of up to 5 mm suitable for making bedding layers for dry paving



DRAINING UNDERFLOOR

STABILISED MIX

Resistant and draining

Ideal for underfloors

Natural mixed crusher aggregate ideal for creating draining and load-bearing underfloors

Products for Gardens and Green Areas

A complete range of products for creating, decorating and maintaining parks, private gardens and public green areas. Our materials are available in different packaging to meet the needs of different types of customers and construction.

ORNAMENTAL STONES

Natural pebbles and granulates in numerous combinations of colour, size and packaging.



White Carrara, granulate and pebble

Verona Red, granulate and pebble

Siena Yellow, granulate Volcanic Lapillus



Green Alps, granulate and pebble

Ebony Black, granulate and pebble

Florence Gravel, granulate

Creek round rock granulate



20 Kg



1500 Kg



1500 Kg



Bulk



TUFF AND PORPHYRY

Tuff blocks in two colour shades and different sizes for creating flowerbeds, walls and paths. Porphyry mosaic for creating pathways and paved areas.



SOILS AND MULCHES

Soils for general and specific uses. Natural mulches for finishing flower beds and vegetable gardens.



COMPLEMENTS

Complementary materials for creating green areas, such as natural, deferralised and sterilised sands for play areas



Visit our websites and find out more:



www.bacchispa.it



www.gasbeton.it

There you will always find:

- images
- installation videos
- technical data sheets
- instructions
- design files
- and much more documentation

From our sites you can also

book an appointment with our technicians for a dedicated consultation and, if needed, you can always write to

supportotecnico@bacchispa.it

News and novelties run fast on our social media:



YouTube

Videos, interviews, tutorials to learn how to build to perfection and many other useful videos for your profession



Facebook

A constant, up-to-date dialogue on our world of products and systems for building the future



LinkedIn

The network that connects us with professionals to communicate technical news and trends in the construction market



Instagram

The beauty of sustainable architecture told through images of materials, projects and building sites

#BACCHIFORBUILDING

See the most updated materials on our website





Via Argine Cisa, 19
42022 Boretto (Reggio E.) Italy
Tel. 0522 686080 - Fax: 0522 1848490
e-mail: commerciale@bacchispa.it
www.bacchispa.it

VAT code: 02650080357

