ISOLMANT SUPER BIPLUS

UNDERSCREED INSULATION

Specific for underscreed impact sound in double layer applications with ≥ 5 cm finishing screed.
Ideal for lightweight structures.

WHAT IS ISOLMANT SUPER BIPLUS

High performance resilient layer made of 5 mm polyethylene Isolmant Special antracite coupled on the upper side with Isolmant Telogomma (specially calibrated in terms of mass) covered with a layer of non-woven fabric with an anti-tear function and on the lower side with FIBTEC XF1-EL (elasticized needle-punched fibre manufactured to calibrated specifications). It provides excellent impact sound and airborne insulation for horizontal partitions. Thickness 10 mm.

SPECIFIC APPLICATIONS

Isolmant Super Biplus is specific for floating screeds as provided by UNI 11516:2013 standards with any type of slab. This product is particularly suitable for use in lightweight structures, such as wooden slabs, it can be used both in two-layer solutions, thanks to the non-woven upper layer with anti-tear function, and in single-layer solutions. It needs a finishing screed at least 5 cm thick. In case of disjointing a floating screed from perimeter walls, it is recommended not to turn Isolmant Super Biplus upside down but to use the flanking strip Isolmant Fascia Perimetrale.
Install Isolmant Super BiPlus with the rubber side facing upwards.

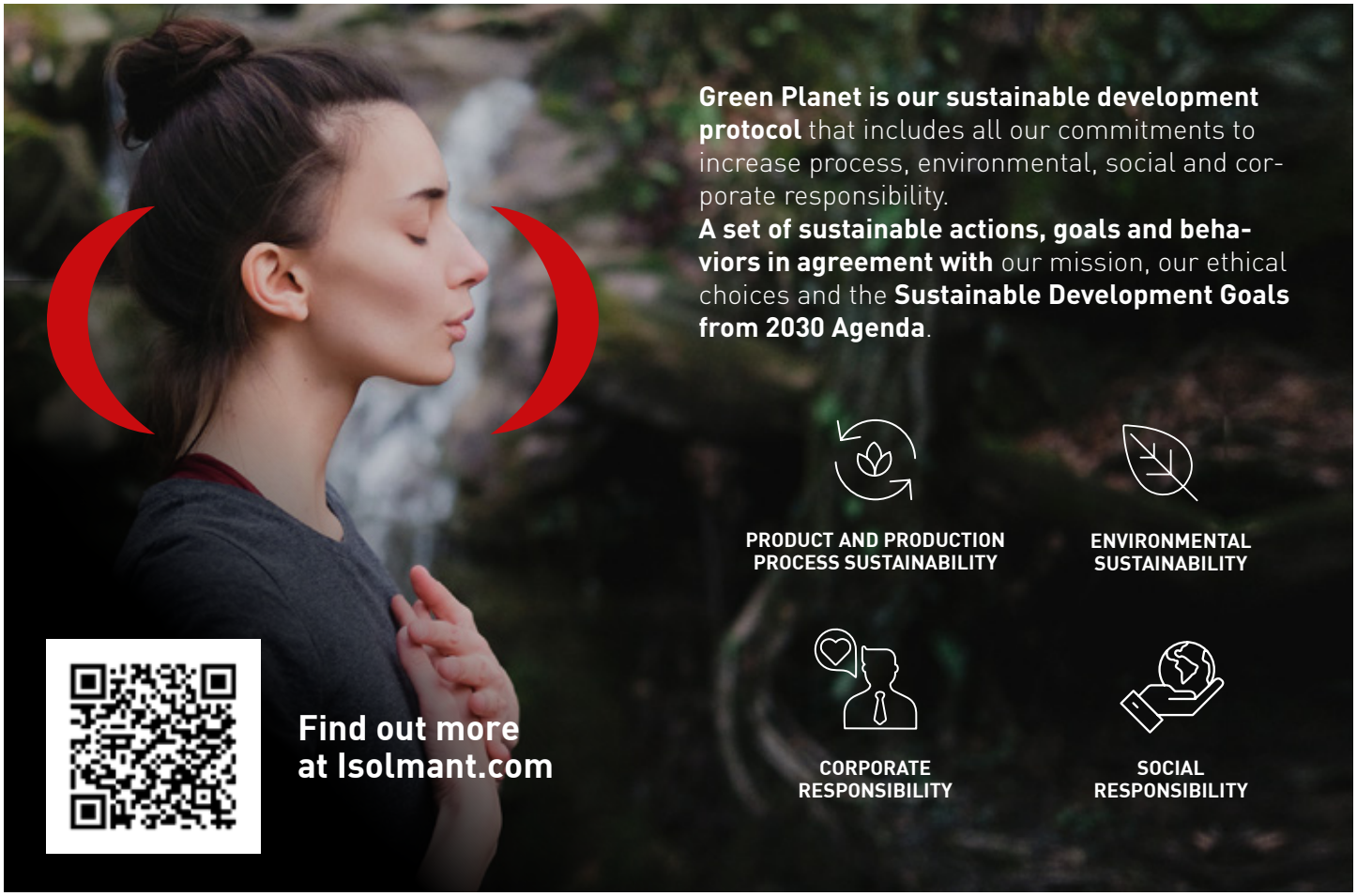
SUSTAINABLE HEALTHY

All our products with the "**Guaranteed Green Planet**" logo are compliant with the sustainability criteria of the most important environmental protocols and certified according to the major national and international standards.

GREEN FEATURES OF ISOLMANT SUPER BIPLUS

- Result to VOC emission test: **Indoor Air Confort GOLD;**
- Contributes to achieving credits for the **environmental certification** of a building according to the **LEED or ITACA** protocols.
- This product can be disposed of according to CER n. 170604.

Complies with the requirements defined by the Italian CAM Edilizia for acoustic and thermal insulation materials regarding the request for high acoustic insulation performance, the percentage of recycled material and the absence of hazardous substances.



ADVANTAGES

- Excellent acoustic impact sound.
- Excellent airborne insulation.
- Heavy layer product.
- It can be used in both renovation and new construction.
- High resistance to foot traffic and tearing.
- Low thermal conductivity.
- Inalterable in time and unlimited duration.
- Contact with water does not affect performance or characteristics.
- Resistant to mould or insects.

SPECIFIC APPLICATIONS

- Easy installation.

> To be positioned with the rubber side facing upwards

NOMINAL THICKNESS:	10 mm
DYNAMIC STIFFNESS:	s'= 10 MN/m^3 [1]
IMPACT SOUND INSULATION:	ΔL_w = 34 dB [2]
"IN SITU" IMPACT SOUND INSULATION:	$L'_{n,w}$ = 56 dB [3]
AIRBORNE NOISE INSULATION:	R_w = 61 dB [4]
COMPRESSION CLASS:	CP2 [5]
CONDUCTIVITY:	λ= 0.035 W/mK
THERMAL RESISTANCE:	R_t = 0.231 m^{2}K/W
SPECIFIC HEAT CAPACITY:	c = 2100 J/kgK
VAPOUR RESISTANCE:	μ = 3600
EMISSION OF VOLATILE ORGANIC COMPOUNDS:	VOC A+ Indoor Air Confort GOLD test report by Eurofins [6]
CE MARKING:	Harmonised standards for CE marking are NOT currently available for acoustic insulation products. This means that Isolmant products are currently NOT subject to CE marking, nor to the drawing up of a PDO (declaration of performance) or DDP (declaration of performance). All Isolmant products are placed on the market in compliance with the regulations in force in the country of destination and with the necessary certifications to guarantee their use in dedicated applications.
SIZE:	Rolls of: 1.00 m x 10 m (h x L) = 10 m^2
PACKAGE:	Single rolls

(1) Istituto Giordano test report n.323393

(2) Value calculated according to UNI EN ISO 12354-2 and UNI TR 11175 standards on the following stratigraphy: installing Isolmant Super Biplus and concrete finishing screed. 6 cm

(3) Value measured on site - see structure page 3 of this technical data sheet

(4) Value calculated according to UNI EN 12354-1 and UNI TR 11175 standards on the following stratigraphy: 2 cm + 5 cm thick concrete topping + lightened concrete substrate and 7 cm thick concrete floor finishing screed. .

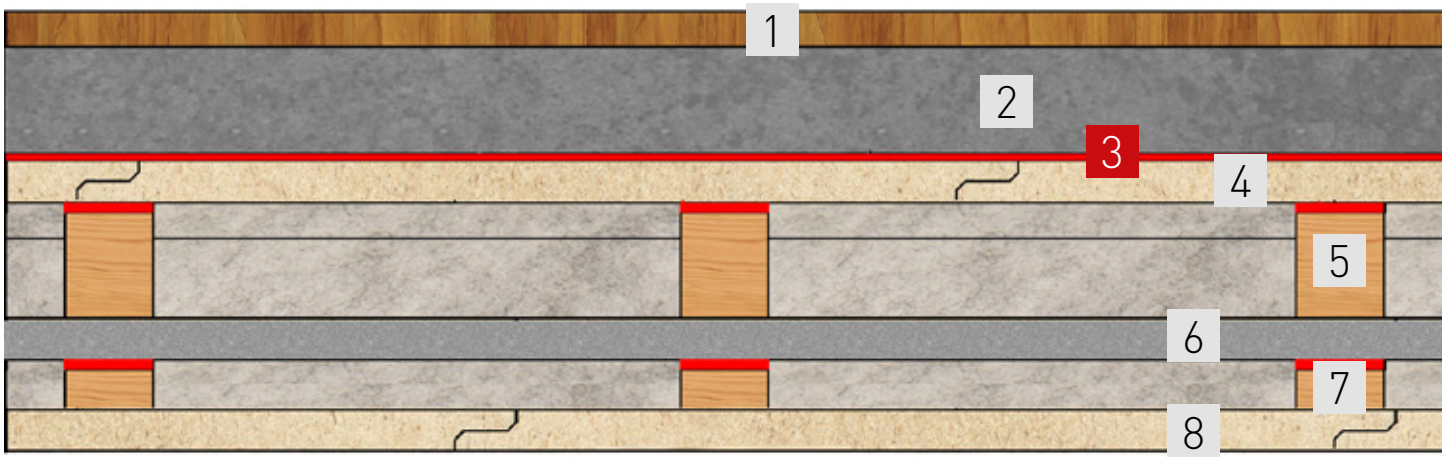
(5) Test report No.1007_1501

(6) Indoor Air Confort GOLD test report by Eurofins n. 392-2024-00329702_A_EN

ITEM SPECIFICATIONS

Resilient layer made of physically reticulated expanded closed-cell polyethylene, joined on the upper side with EPDM rubber (specially calibrated in terms of mass) covered with a layer of non-woven fabric and on the lower side with a special needle-worked fibre that is conceived to enhance the acoustic performance (Isolmant Super Biplus type). Nominal thickness 10 mm. To be positioned with the rubber side facing upwards. Dynamic stiffness 10 MN/m^3.

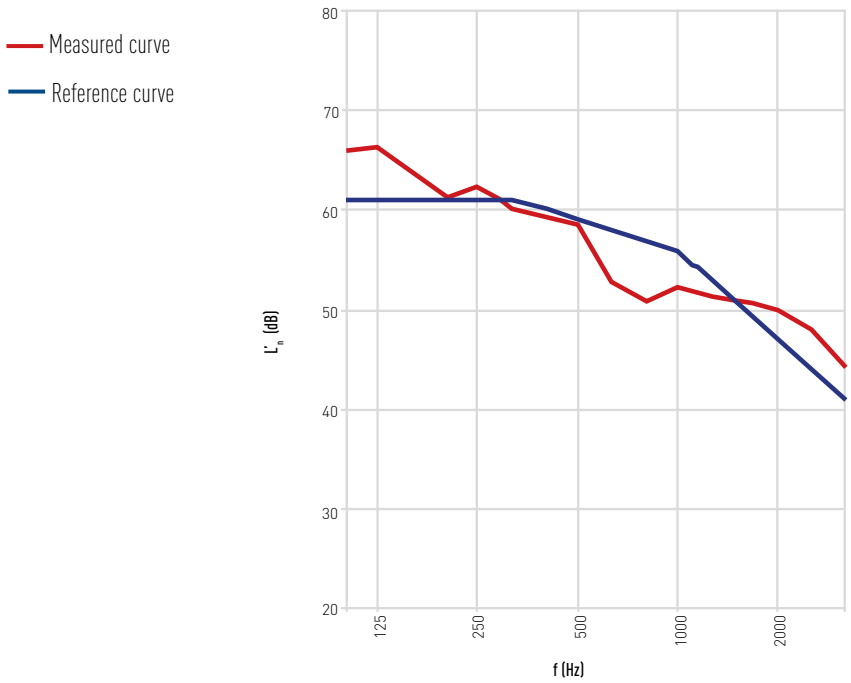
RESIDENTIAL BUILDING IN LUGANO (CH)



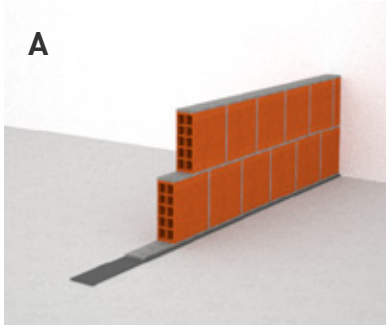
No.	Layer	Material	Thickness (m)	Surface mass (kg/m²)
1	Flooring	glued wooden flooring	0.01	
2	Supporting screed	self-levelling	0.06	120
3	Resilient material	**Isolmant SUPER BIPLUS**	**0.01**	
4	Wooden plank	in chipboard	0.025	16
5	Supporting structure	220x70 mm load-bearing wooden beams with Isolmant Perfetto CG thickness. 45 mm	0.22	
6	plasterboard plank	Plasterboard	0.0125	10
7	Wooden slats	30x50	0.03	
8	Finishes	in chipboard	0.018	15
		Total thickness	0.385	

$L'_{n,w}(C_l) = 56\ (-2)$ dB

FREQUENCY IMPACT SOUND INSULATION



Frequency (Hz)	L'_n (dB)
100	63.1
125	63.5
160	60.5
200	58.4
250	59.6
315	57.3
400	56.4
500	55.8
630	49.9
800	47.9
1000	49.5
1250	48.5
1600	48
2000	47.2
2500	45.1
3150	41.6



INSTALLING FASCIA TAGLIAMURO

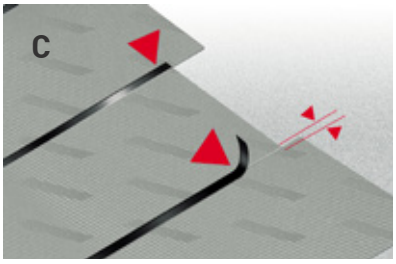
STEP 1

Before installing all the partitions, Isolmant Fascia Tagliamuro must be laid. This high density,reticulated polyethylene foam accessory is specifically designed to disjoint partitions and slabs, thereby helping to reduce the structural sound transmission from the walls to the slab. This band is available in different thicknesses and densities depending on the weight of the partitions (fig. A).

STEP 2

DISJOINTING OF REINFORCED CONCRETE STRUCTURES

In the presence of stairwells, elevator compartments and pillars (even if contained within the vertical partitions) that rigidly connect all the structural elements from the foundations to the last floor, it is necessary to cover them with elastic material (such as Isolmant Cemento Armato) and then finish them, where possible, with a 4/5 cm board or with coated plaster panels. With a reduced thickness element, it is possible to fix a strong plaster-holding net directly onto the elastic insulating material with nylon plugs, and then plaster it over, paying particular attention to the cracks (fig. B).



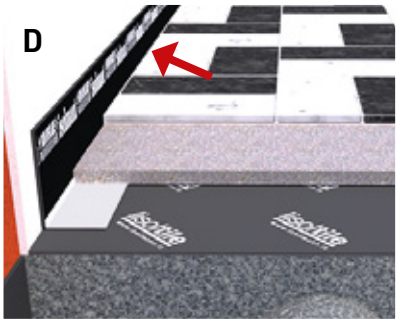
INSTALLING ISOLMANT SUPER BIPLUS RESILIENT LAYER

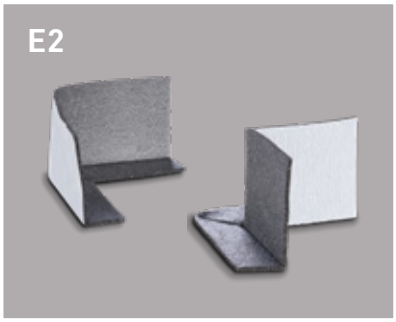
STEP 3

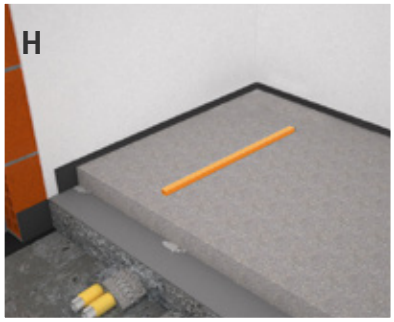
Isolmant Super Biplus does not have an anti-tearing layer and is therefore not recommended for single-layer bases In this case, since no levelling screed is provided (which is always advisable), Isolmant Super Biplus must be laid directly onto the slab (which must have a flat, even surface) and then the systems must be laid in order to avoid the risk of tearing and the possible formation of air bubbles underneath. The sheets of Isolmant Super Biplus must be joined and sealed with Isolmant Nastro Telato or Isolmant Fascia Nastro (Fig. C).

STEP 4 INSTALLING FASCIA PERIMETRALE

To avoid acoustic bridges, the use of Isolmant Fascia Perimetrale is recommended, to be laid along the entire perimeter of the room without interruption. The height of Isolmant Fascia Perimetrale must be chosen by the designer/contractor, taking into account the actual height at each site, in order to guarantee that the band is about 2/3 cm higher than the flooring level. This excess must be trimmed after laying the floor (Fig. D). The continuity of the installation must also be ensured along the thresholds of entrance doors and French windows, as well as in technical niches for housing the manifolds of the heating system, pillars, pilasters, doors and other wall movements. Specific accessories are available to facilitate this task: Isolmant Angoli e Spigoli and Isolmant Telaio Porte (Fig. E1 - Fig. E2).
It is also necessary to avoid gaps between the strip and the walls at the corners (Fig. F) where cementitious material can penetrate, as well as ensuring that the strip also adheres continuously along the slab-wall connection: the formation of the shell (Fig. G) causes a reduction in the thickness of the screed resulting in a lack of flooring support at that point, risking cracking over time. In conclusion, before proceeding with the laying of the finishing screed, the contractor must be reasonably certain that he has created a perfect watertight tank in which the cement screed he is going to lay can float without establishing any rigid connection either with the load-bearing layers underneath or with the walls to its sides. Any uncovered points that could constitute an "acoustic bridge" must be covered with Isolmant Fascia Nastro.
In conclusion, before proceeding with the laying of the finishing screed, the contractor must be reasonably certain that he has created a perfect watertight tank in which the cement screed he is going to lay can float without establishing any rigid connection







SCREED CONSTRUCTION

STEP 5

The finishing screed must guarantee adequate mechanical resistance according to the actual laying and loading conditions. Appropriate safety measures must be taken, such as assessing the adequate consistency of the mix, the curing time, the possible need to use collaborating elements (wire mesh or fibres), the sufficient compactness of the surface and the possible surface treatment with consolidating products (as indicated by the manufacturer of the screed and the reference standards). With reference to the thickness of the finishing screed, it is advisable to create a minimum thickness of no less than 4.5 cm in the case of the laying of Isolmant Underspecial 8 mm and no less than 7 cm in the case of the laying of Isolmant Underspecial 13 mm. If the thickness is less than 4.5 cm in some places, it is advisable to reinforce the screed with galvanised electro-welded mesh. In all cases, the screed must be well trodden (especially at the sides and corners), compacted throughout, smoothed and trowelled (by hand or by helicopter) to a high standard (fig. H). When pouring the screed, special care must be taken not to tear or puncture the elastic material.

STEP 6

INSTALLING FLOORING AND SKIRTING BOARDS

It is essential to inform all site operators that the excess of the perimeter band must be trimmed only after the flooring has been laid and grouted (fig. I) and before laying the skirting board. The direct contact of the flooring with the walls creates an acoustic bridge, which impedes the "floating" of the screed on the elastic underlay and causes a loss of insulation of several decibels. Therefore, the flooring should be joint to the perimeter band, ensuring the system elastic functioning. In particular, a skirting board made of tile should not be laid on the flooring but should be raised by a few millimetres and grouted with an elastic silicone-based binder or a flexible mortar (fig. L). If the joint were rigid, it would prevent the floor from floating and would scape.

WARNINGS:

* This data sheet does not constitute a specification and, if it consists of several pages, please ensure that you have consulted the complete document. Although, these instructions are the result of our best expertise they are indicative. The user should establish whether the product is suitable for its intended application. The user will be also in charge of all the responsibility for the use of the product itself.

**The sound insulation values given in this technical data sheet are the result of laboratory tests or tests carried out on site: they cannot be considered a predictive value for every situation that may occur on site. Acoustic performance is closely linked to the specific conditions of each site.

***Caution: do not expose the product to direct sunlight and bad weather.

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