

ISOLMANT ISOLGYPSUM SPECIAL

WALL INSULATION WITH FALSE WALL ON METAL FRAME OR LINING WALL

The specific solution for the thermal and acoustic renovation of thin walls. Thanks to the special "wall saver" technology, it works by improving the acoustic efficiency of the wall and eliminating the problem of cold walls. Available in combination with four types of plasterboard.

WHAT IS ISOLMANT ISOLGYPSUM SPECIAL?

Specific solution for thermal and acoustic renovation of low thickness walls, consisting of a plasterboard panel coupled with a 10 mm thick layer of Isolmant Special. The innovative 'wall saver' technology works by improving the acoustic efficiency of the wall and eliminating the problem of cold walls, reducing the risk of condensation and mould.

SPECIFIC APPLICATIONS

High-performance acoustic and thermal insulation product to be directly installed on internal walls, partition and perimeter walls as well.

CAM MINIMUM ENVIRONMENTAL CRITERIA SUSTAINABLE

VOC FREE HEALTHY

ECOLOGICAL

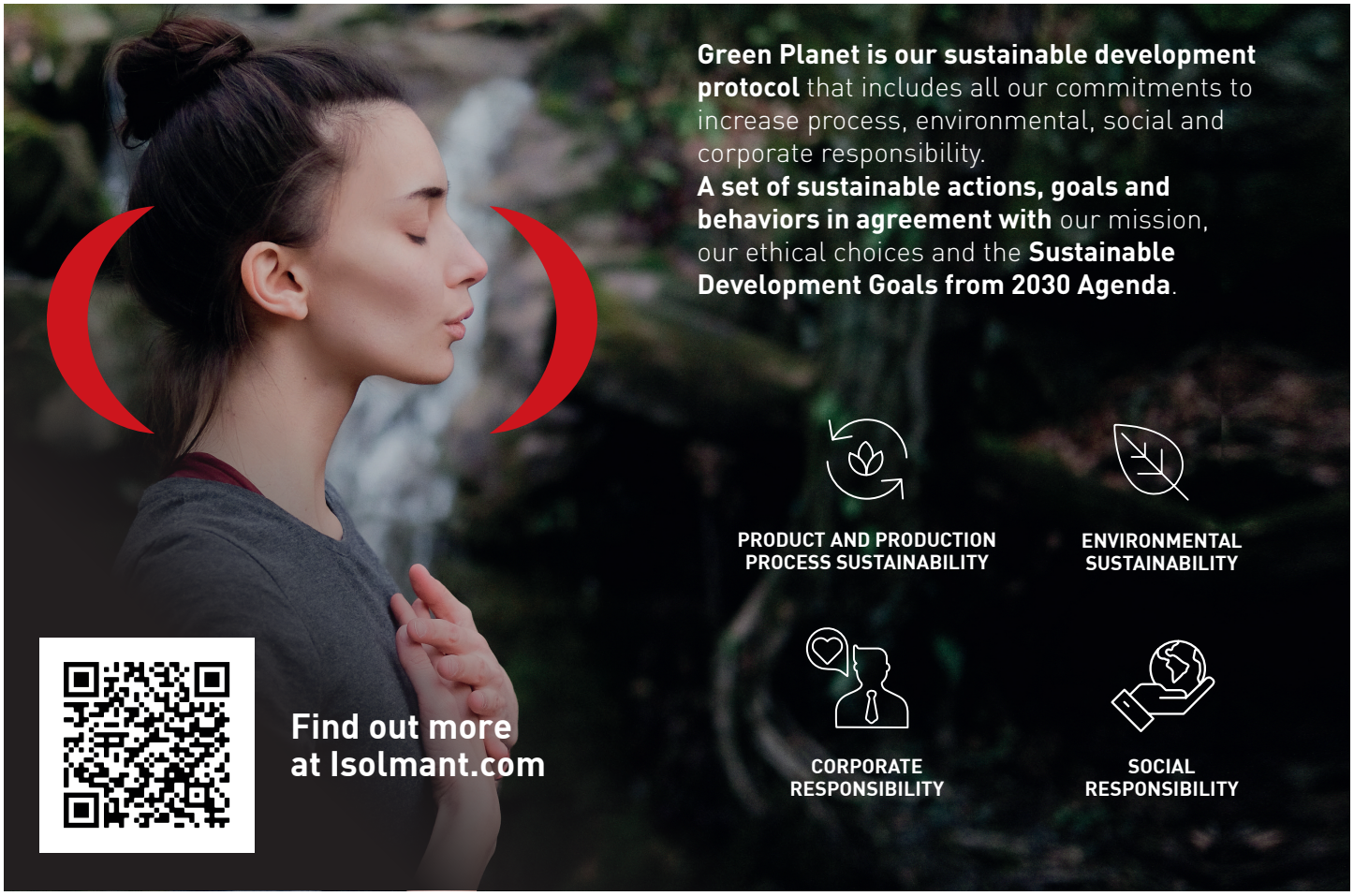
All our products with the "**Guaranteed Green Planet**" logo are compliant with the sustainability criteria of the most important environmental protocols and certified according to the major national and international standards.



GREEN FEATURES OF ISOLMANT ISOLGYPSUM SPECIAL

- **Sustainable.**
- **Environment friendly.**
- **Recyclable.**
- **Environmentally friendly production.**
- **VOC test report:**
  - Indoor Air Comfort GOLD.
- Contributes to achieve credits for the environmental certifica-tion of a building according to **LEED or BREEAM standards.**

Complies with the requirements defined by the Italian CAM Edilizia for acoustic and thermal insulation materials regar-ding the request for high acoustic insulation performance, the percentage of recycled material and the absence of hazar-dous substances.

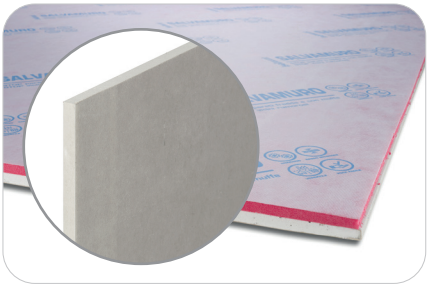




ADVANTAGES

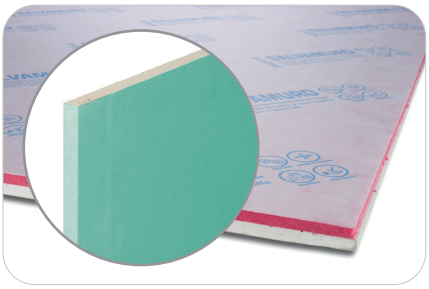
- High acoustic and thermal insulation.
- Low thermal conductivity.
- High mechanical resistance.
- Unalterable over time.
- Unlimited durability.
- Reaction to fire.
- Non-toxic and non-allergenic.
- Easy installation.
- Available in various formats.

IsolGypsum Special is a panel made of 10 mm Isolmant Special, available in our unique #rossoisolmant colour and coated with a specific fabric sheet, joined to four different types of plasterboard. A product with unique characteristics, considered a universal 'wall saver', which restores walls both acoustically and thermally. A single solution for a comprehensive, low-thickness renovation that guarantees not only an improvement in the soundproofing of the wall, but also significant energy efficiency in the room.



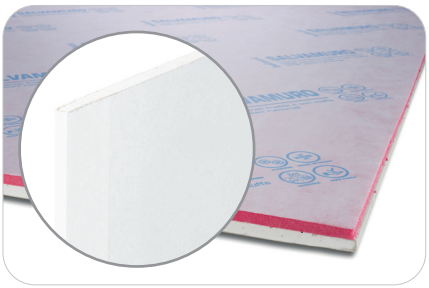
IsolGypsum Special **STANDARD**

Isolmant Special 10 mm coupled with a type A panel, consisting of a core of rehydrated hemihydrate gypsum, covered on both sides with cellulosic material acting as external reinforcement.



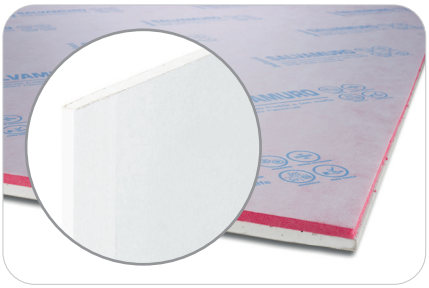
IsolGypsum Special **IDRO**

Isolmant Special 10 mm coupled with a H2 type panel, which can be used in humid environments such as bathrooms. The sheet is characterised by very low water absorption and excellent sealing at high humidity levels. Green cardboard coating on the visible side.



IsolGypsum Special **D+ SALUS**

Isolmant Special 10 mm coupled with a D-type panel, with a higher density core and gypsum with glass fibre additives, giving the product a high degree of surface hardness and mechanical strength. Thanks to Activ'Air® technology, the panel can absorb and neutralise up to 70 % of the formaldehyde in indoor air.



IsolGypsum Special **D+ RESISTO**

Isolman tSpecial 10 mm mm coupled with a D-type panel, with a higher density core and gypsum with glass fibre additives, giving the product a high degree of surface hardness and mechanical strength. Ideal where high mechanical strength, load bearing capacity and impact resistance are required. It contributes to increased soundproofing and reaction to fire features.

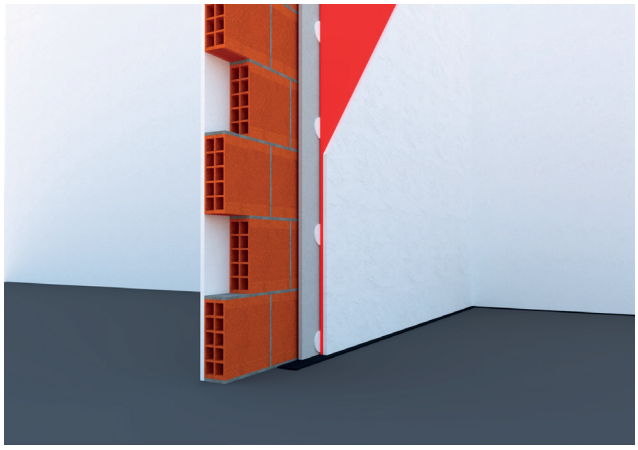
		ISOLGYPSUM SPECIAL STANDARD	ISOLGYPSUM SPECIAL IDRO	ISOLGYPSUM SPECIAL D+ SALUS	ISOLGYPSUM SPECIAL D+ RESISTO
NOMINAL THICKNESS:		22.5 mm	22.5 mm	22.5 mm	22.5 mm
WEIGHT:		9.5 kg/m²	10.1 kg/m²	10.5 kg/m²	12.6 kg/m²
THERMAL CONDUCTIVITY:		λ = 0.21 W/mK (panel) λ = 0.035 W/mK (isulating layer)			
THERMAL RESISTANCE:		R_t = 0.345 m²K/W			
RESISTANCE FACTOR TO VAPOR DIFFUSION - dry field		μ = 10 (panel) μ = 3600 (insulating layer)			
DIFFUSION EQUIVALENT AIR LAYER THICKNESS:		S_d = 36.1 m			
ACOUSTIC IMPROVE-MENT:		ΔR_w = 9 dB	ΔR_w = 9 dB	ΔR_w = 12 dB	ΔR_w = 13 dB
REACTION TO FIRE CLASS:		Euroclasse B-s1. d0			
EMISSION OF VOLATILE ORGANIC SUBSTANCES:		Indoor Air Confort Gold [1]			
SUPERFICIAL WIDTH		1200 mm	1200 mm	1200 mm	1200 mm
LENGTH		2000 mm custom heights on request	2000 mm custom heights on request	2000 mm custom heights on request	2000 mm custom heights on request
OFF SQUARE		< 2.5 mm/m	< 2.5 mm/m	< 2.5 mm/m	< 2.5 mm/m
PANEL TYPE:		TYPE A	TYPE H2	TYPE D I	TYPE D F I R
EDGES	**Longitudinal**	thinned edge	thinned edge	thinned edge	thinned edge
	Head	straight edge	straight edge	straight edge	straight edge
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 DOP (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.			

[1] Indoor Air Confort GOLD test report no. 392-2023-00166003_A_EN by Eurofins

ITEM SPECIFICATIONS

Wall lining system made of Isolmant Special, 10mm thick, joined to a plasterboard panel 12.5 mm. Indoor Air Comfort GOLD test report by Eurofins. Thickness 22.5 mm.

STRUCTURES (1)

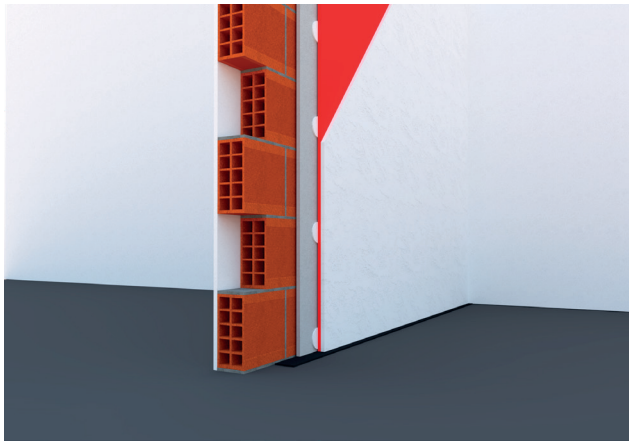


R_w = 52 dB

ITC test report no. 3518 / RP / 02

8 mm hollow brick wall, plastered on both sides, clad on one side with IsolGypsum Special D+ Resisto.

STRUCTURES (2)

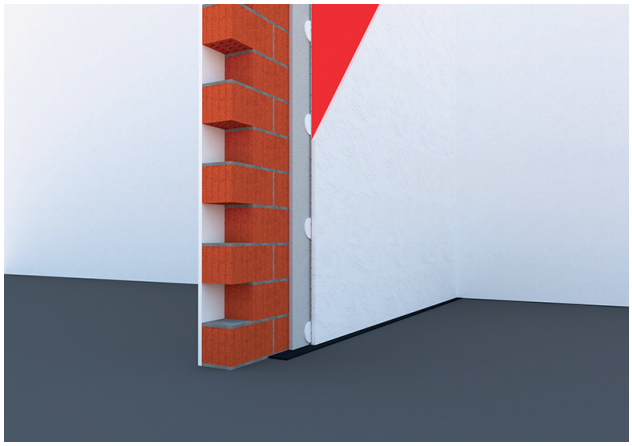


R_w = 54 dB

Value calculated according to UNI EN 12354-1 and UNI TR 11175

12 mm hollow brick wall, plastered on both sides, clad on one side with IsolGypsum Special D+ Resisto.

STRUCTURES (3)

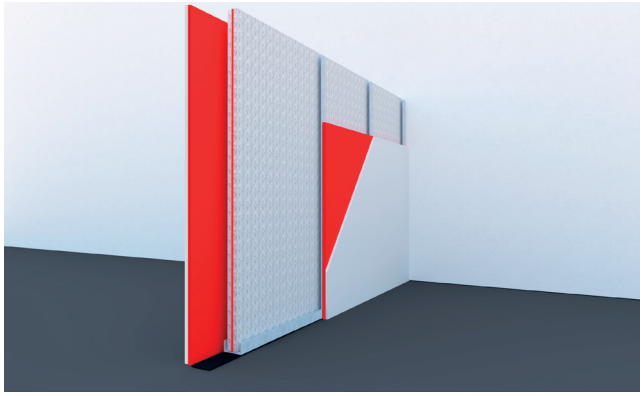


R_w = 56 dB

Value calculated according to UNI EN 12354-1 and UNI TR 11175

12 cm Poroton brick wall plastered on both sides, clad on one side with IsolGypsum Special D+ Resisto.

STRUCTURES (4)

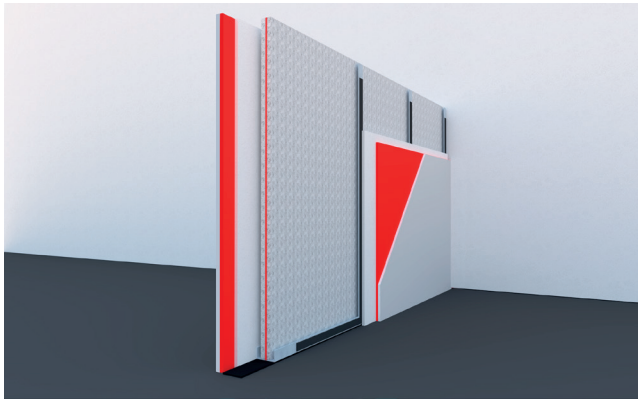


R_w = 53 dB

Value calculated according to UNI EN 12354-1 and UNI TR 11175

Light wall made of a metallic frame 5 cm thick with Isolmant Polifibre Bloccarumore inside and plated on each side with IsolGypsum Special D+ Resisto sheet.

STRUCTURES (5)

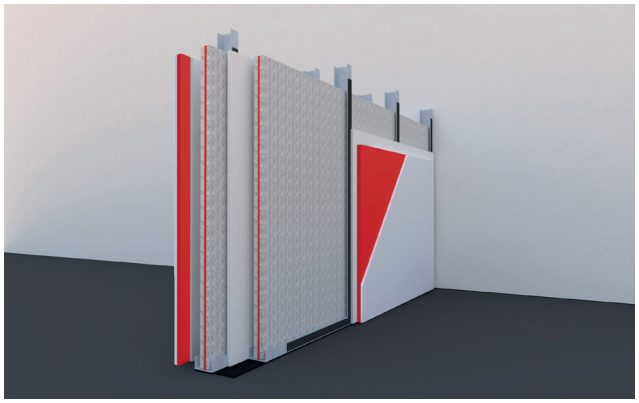


R_w = 55 dB

Value calculated according to UNI EN 12354-1 and UNI TR 11175

Light wall made of a metallic frame 5 cm thick with Isolmant Polifibre Bloccarumore inside and plated on each side with one standard gypsum sheet and one IsolGypsum Special Standard sheet.

STRUCTURES (6)

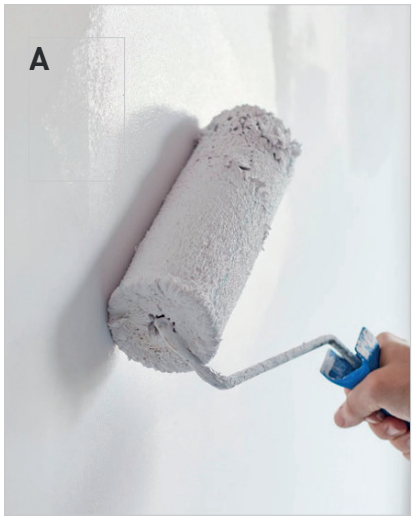


R_w = 66 dB

Value calculated according to UNI EN 12354-1 and UNI TR 11175

Complex light wall made of two metallic frames, one 5 cm thick and one 7,5 mm and 5 gypsum plasterboards: one gypsum plasterboard bonded with IsolGypsum Special Standard + metallic frame 5mm thick with Isolmant Polifibre Bloccarumore placed inside + one single gypsum plasterboard + metallic frame 7.5 cm thick with Isolmant Polifibre Bloccarumore placed inside + one gypsumplasterboard bonded with IsolGypsum Special Standard.

WALL INSULATION WITH GLUED PLASTERBOARD WALL



PREPARATION OF THE SUBSTRATE

STEP 1

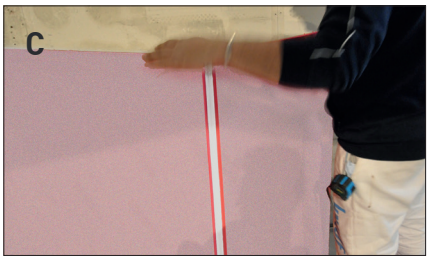
IsolGypsum Special may only be glued to walls that are free of dust, grease and moisture. In the case of very porous surfaces, e.g. exposed brick wall, it is advisable to wet the wall surface or to apply a coat of water-dispersion resin treatment to prevent water being taken away from the gypsum-based adhesive before it has set. Smooth surfaces, e.g. concrete walls or prefabricated objects made of metal framework, must be treated with a suitable quartz powder primer. Walls plastered with hydraulic mortar without surface finishing treatment must be probed for the whole surface in order to identify cavities and any detachments of the plaster, which must be removed and restored. The entire surface thus restored should be primed or wetted. For laminated walls the cladding product should be stripped at the bonding points, that must be coupled directly on the masonry.

STEP 2

CUTTING THE PANELS

After having marked out the exact size of the cut, it will be necessary to proceed by first cutting the insulating layer and then the cardboard and then proceed with a dry blow to break the panel itself (Fig. A-B).







FIXING THE PANELS WITH GYPSUM-BASED GLUE

STEP 3.1

IsolGypsum Special must be applied to the substrate using a "gypsum-based glue" (such as Knauf Perlifix) which must be prepared according to the instructions for use. However, it is always necessary to check that the glue chosen is suitable for use on the substrate to which Isolgypsum Special is to be coupled. The glue must be placed on the side of the insulating fiber crosswise in strips approximately 30 cm wide placed at a distance of about 40 cm from each other. On each strip, 4 glue pads ("elements") must be applied, equidistant from each other, with a diameter of about 10/12 cm. The height of these "elements" must not exceed 3 cm (Fig.C.1). The indicative consumption of glue can range between 3 and 4 kg /m^2 also depending on how the substrate is.

STEP 3.2

FIXING THE PANELS WITH A SEALING ADHESIVE



IsolGypsum Special panels can be glued to the substrate using an elastic adhesive sealant based on high-performance MS polymers with a suction cup effect (such as Isolmant Incollafacile). However, it is always necessary check that the sealant is suitable for use on the substrate to which IsolGypsum Special is to be applied. Please note that in the presence of moisture or porous surfaces, adhesion can be improved by applying a suitable primer. The sealant must be placed on the side of the insulating material in narrow, vertical strips (approx. 10 mm wide) at a distance of approx. 20 cm from each other using a suitable hand or pneumatic gun. The height of the placed sealant must be in such a way that, when pressed, its thickness is not less than 1-2 mm (Fig. C.2). The indicative consumption of sealant is approximately 1 cartridge per 1.2 x 2 m sheet. Once the sealant has been applied, the sheet must be plated onto the substrate with light pressure within 10-15 minutes.







PANELS INSTALLATION

STEP 4

The panels will be applied to the support once the preliminary installation phases have been completed, consisting of tracing on the ground and on the ceiling the overall dimensions of the slab and lay the IsolGyspum Tagliamuro strip on the flooring (Fig. D). A separation tape must be applied to the connection (half adhesive and half oiled) between the boards and the ceiling and adjacent walls not plasterboard, with adhesive side facing inwards, in order to create a flowing joint to avoid the formation of cracks and/or multiform cracks following the subsequent plastering phase. The panels with special mouldings (Fig. E-F) will then be placed, exerting slight pressure, against the existing masonry in a sequential manner. During installation, each slab must be checked for verticality (using a spirit level) and flatness to ensure perfect alignment with the floor and ceiling tracks. Flatness may be achieved by lightly tapping the panels on the outer surface with the hand or using a metal ruler of suitable length so as to even out the crushing of the glue or sealing adhesive. It will then be necessary to carefully place the adjacent panels next to each other to prevent the adhesive mortar from leaking out, thus eliminating thermal and/or acoustic bridges, and to wait for the adhesive to set before proceeding with sealing and grouting the joints.

STEP 5

CORNER FORMATION

At corners, the surface of the panels must be cut by removing plasterboard strip equal to the total thickness of IsolGypsum Special so that the insulating fiber on the back of the sheet remains visible. It will then be necessary to position the second panel directly in contact with the fiber, thus guaranteeing the continuity of insulation and avoiding thermal and acoustic bridges (Fig. G).









GROUTING PANELS

STEP 6

Joints should be grouted using suitable grout and microperforated paper as joint covers and this will be carried out in three coats. In the first coat, the grout must be distributed with a steel trowel over the joints of the slabs, taking care to fill the joints consistently so as to reach the level of the surface of the panels and thus prepare the substrate for the joint. The grouted joints are then immediately covered with "micro-perforated paper joint-covering tape" (to be preferred to micro-perforated mesh) in order to give to the grouting adequate mechanical resistance by absorbing the stresses that may be exerted on the joint by micro-movements of the support, impacts and induced mechanical stresses, or by thermo-hygrometric stresses. The micro-perforated paper must be laid with the rough side facing panels at the centre of the joint (the underlying grout must be abundant to prevent the paper from detaching) and must be applied by exerting adequate pressure (Fig. H) with a steel trowel, taking care to avoid air bubbles (Fig. I). This will also remove excess grout and spread the grout to obtain more uniform joints. After checking that this layer has dried completely and that there are no imperfections or micro-irregularities (Fig. L), the second coat of filler can be applied. Finally, once this second coat has dried, the third and final coat of filler can be applied, which will be very thin. Finally, it will be necessary to trim the protruding excess of the tape and proceed with the finishing as a normal plasterboard wall. Indicative consumption of grout will be 0.4-0.5 kg/m^2.

WARNINGS:

- FINAL ADJUSTMENT AND TIGHTENING IS RECOMMENDED FOR MOUNTING ON METAL FRAMES OF THE SCREWS BY HAND IN ORDER TO AVOID BREAKING THROUGH THE PLASTERBOARD COVERING.

- ISOLGYPSUM SPECIAL MUST BE MOUNTED ON THE CEILING USING SPECIAL CLAMPS.

INSTRUCTIONS FOR ACOUSTIC FALSE WALLS INSTALLATION ON METAL FRAME

INSTALLING THE METAL FRAME

STEP 1

Separate the metal frame from the floor, from the ceiling/slab from the adjacent perimeter walls and from the plasterboard sheets adjacent to it by applying Isolmant Nastro Orditura Cartongesso 3.5 mm thick physically reticulated expanded closed-cell polyethylene strips. In order to reduce losses due to flanking, it is advisable, if possible, to distance the metal structure at a 1-2 cm from the existing wall.

INSTALLING ISOLGYPSUM SPECIAL SHEET

STEP 2

Proceed to place the IsolGypsum Special sheet on the metal frame by screwing it with the use of self-drilling screws with a nail point, then taking care to seal and fill all the joints between slab and slab in a workmanlike manner, like all joints between slabs and walls and between slabs and ceiling.
Then follow Steps 5 and 6 of the Instructions for direct plating by gluing.

INSTRUCTIONS FOR ACOUSTIC FALSE CEILINGS INSTALLATION ON METAL FRAME

INSTALLING THE METAL FRAMEWORK

STEP 1

Install the metal structure on anti-vibration brackets and disjoint this structure by using Isolmant Nastro Orditura Cartongesso tape to avoid direct contact between the metal frame and the plasterboard panels.

INSTALLING ISOLGYPSUM SPECIAL SHEET

STEP 2

Proceed to the positioning of the IsolGypsum Special sheet by screwing it with the use of self-drilling screws with point to nail, taking care to seal and grout all the joints between slab and slab in a workmanlike manner, like all the joints between slabs and walls.
Then follow Steps 5 and 6 of the Instructions for direct plating by gluing.

ISOLMANT ISOLGYPSUM PERFETTO > SIZE

ITEM	DESCRITION	SIZE	PACKAGE
GYPS13PE10M248	IsolGypsum Special S	1.2 m x 2.0 m (2.4 m^2) (plaster)	48 m^2 (pallet with 20 panels)
GYPWP13PE10M248	IsolGypsum Special SI	1.2 m x 2.0 m (2.4 m^2) (plaster)	48 m^2 (pallet with 20 panels)
GYPAA13PE10M248	IsolGypsum Special D+S	1.2 m x 2.0 m (2.4 m^2) (plaster)	48 m^2 (pallet with 20 panels)
GYPHF13PE10M248	IsolGypsum Special D+R	1.2 m x 2.0 m (2.4 m^2) (plaster)	48 m^2 (pallet with 20 panels)



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.

Via dell'Industria 12, Località Francolino | 20074 Carpiano (MI)
Tel. +39 02 9885701 | Fax +39 02 98855702 | clienti@isolmant.it
isolmant.it | sistemapavimento.it | isolmant4you.it

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