



ISOLMANT ISOLGYPSUM DUO

WALL INSULATION WITH FALSE WALL ON
METAL FRAME OR LINING WALL

The acoustic performance of the Fibtec fiber combined with that of the Telogomma for the best acoustic insulation in case of renovation works. It is available coupled with four different types of plasterboard in order to facilitate and speed up the renovation. It can be used with screws on metal frame or glued directly to the wall.


WHAT IS ISOLMANT ISOLGYPSUM DUO?

It is the isolmant4you solution with the highest acoustic performance, ideal to increase the acoustic insulation of the walls, combining the characteristic and nature of different acoustic insulators. It is, in fact, a plasterboard panel coupled with Isolmant Telogomma, a special elastodynamic EPDM rubber-based mass covering with mineral fillers, its characteristics guarantee a high vibration damping, as well as an important acoustic insulation at low frequencies; coupled in turn with Isolmant's Fibtec, a recycled fibre in technical textile with increasing density along the thickness, with high acoustic and thermal performance, totally ecological, non-allergenic and recyclable.

SPECIFIC APPLICATIONS

High-performance acoustic and thermal insulation product to be directly installed on internal walls, partition and perimeter walls as well. It can be used with screws on metal frame or glued directly to the wall or also in false ceiling structures.



 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 DUO

- **Sustainable.**
- **Environment friendly.**
- **Recyclable.**
- Environmentally friendly production.
- **Volatile Organic Compounds free (VOC A+).**
- Contributes to achieve credits for the environmental certification 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 regarding the request for high acoustic insulation performance, the percentage of recycled material and the absence of hazardous substances.

Green Planet is our sustainable development protocol that includes all our commitments to increase process, environmental, social and corporate responsibility.

A set of sustainable actions, goals and behaviors in agreement with our mission, our ethical choices and the **Sustainable Development Goals from 2030 Agenda.**

PRODUCT AND PRODUCTION
PROCESS SUSTAINABILITY

ENVIRONMENTAL
SUSTAINABILITY

CORPORATE
RESPONSIBILITY

SOCIAL
RESPONSIBILITY

Find out more
at [Isolmant.com](https://www.isolmant.com)

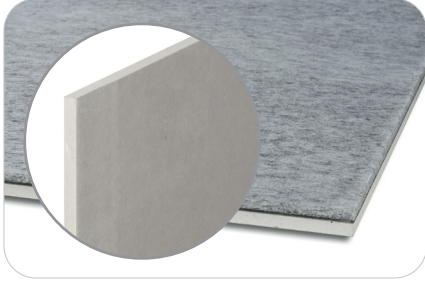


ADVANTAGES

- 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.

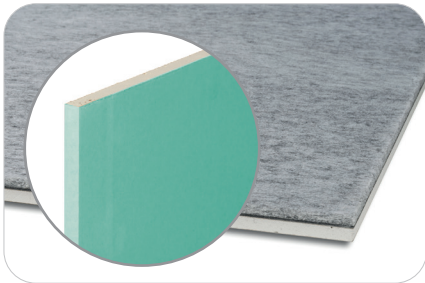
ISOLMANT ISOLGYPSUM DUO > PANELS FEATURES

IsolGypsum Duo is a 24.5 mm thick panel made of the Isolmant Telogomma and the special Fibtec fibre coupled with four different types of plasterboard. Thanks to its technical characteristics, this material is considered to be the material with the highest acoustic efficiency.



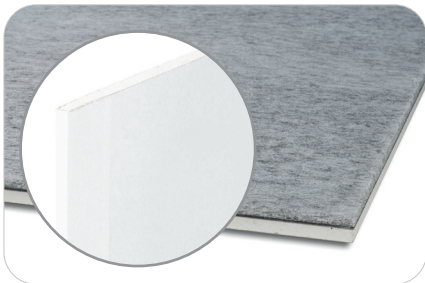
IsolGypsum Duo STANDARD

Isolmant Telogomma and Fibtec fiber 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.



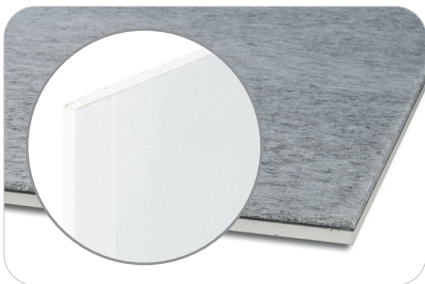
IsolGypsum Duo IDRO

Isolmant Telogomma and Fibtec fiber 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 Duo D+ SALUS

Isolmant Telogomma and Fibtec fiber 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 Duo D+ RESISTO

Isolmant Telogomma and Fibtec fiber 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.

ISOLMANT ISOLGYPSUM DUO > TECHNICAL INFORMATIONS

		ISOLGYPSUM DUO STANDARD	ISOLGYPSUM DUO IDRO	ISOLGYPSUM DUO D+ SALUS	ISOLGYPSUM DUO D+ RESISTO
NOMINAL THICKNESS:		24.5 mm	24.5 mm	24.5 mm	24.5 mm
WEIGHT:		13.5 kg/m ²	14.1 kg/m ²	14.5 kg/m ²	16.6 kg/m ²
THERMAL CONDUCTIVITY:		$\lambda = 0.21 \text{ W/mK (panel)}$ $\lambda = 0.035 \text{ W/mK (fiber insulating layer)}$ $\lambda = 0.278 \text{ W/mK (EPDM insulating layer)}$			
THERMAL RESISTANCE:		$R_t = 0.353 \text{ m}^2\text{K/W}$			
RESISTANCE FACTOR TO VAPOR DIFFUSION dry field		$\mu = 10 \text{ (panel)}$ $\mu = 2 \text{ (fiber insulating layer)}$ $\mu = 7188 \text{ (EPDM insulating layer)}$			
DIFFUSION EQUIVALENT AIR LAYER THICKNESS:		$S_d = 14.5 \text{ m}$			
ACOUSTIC IMPROVE- MENT:	Installation on frame	$\Delta R_w = 15 \text{ dB}$	$\Delta R_w = 15 \text{ dB}$	$\Delta R_w = 17 \text{ dB}$	$\Delta R_w = 19 \text{ dB}$
	Laminated board	$\Delta R_w = 13 \text{ dB}$	$\Delta R_w = 13 \text{ dB}$	$\Delta R_w = 15 \text{ dB}$	$\Delta R_w = 17 \text{ dB}$
REACTION TO FIRE CLASS:		Euroclasse B-s1. d0			
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 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.			

ITEM SPECIFICATIONS

Insulation layer consisting of a technical textile fibre panel with increasing density along the thickness coupled with compound EPDM rubber with mineral fillers, surface density 4 kg/m²; coupled with 12.5 mm thick plasterboard type A, D, H2 (type IsolGypsum Duo S/SI/D+R/D+S). 24,5 mm nominal thickness.

WALL INSULATION WITH GLUED PLASTERBOARD WALL

STEP 1

PREPARATION OF THE SUBSTRATE

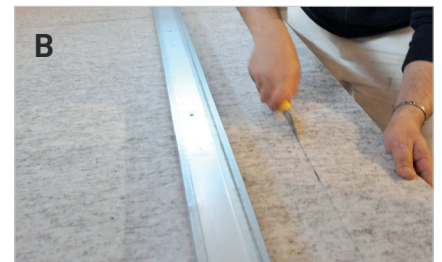


IsolGypsum Duo may only be glued to walls that are free of dust, grease and moisture. In the case of very porous surfaces, e.g. exposed brick wall, it is advisable to wet the wall surface or to apply a coat of water-dispersion resin treatment to prevent water being taken away from the gypsum-based adhesive 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 Duo 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 Duo 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 /m² also depending on how the substrate is.

STEP 3.2

FIXING THE PANELS WITH A SEALING ADHESIVE

IsolGypsum Duo 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 Duo 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.



STEP 4**PANELS INSTALLATION**

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 IsolGypsum 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.

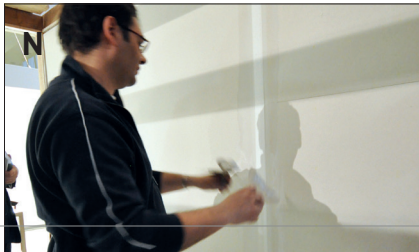
STEP 5**CORNER FORMATION**

At corners, the surface of the panels must be cut by removing plasterboard strip equal to the total thickness of IsolGypsum Duo 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).



STEP 6

GROUTING PANELS



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/m².

WARNINGS:

- ISOLGYPSUM DUO CANNOT BE GLUED TO THE CEILING.

INSTRUCTIONS FOR ACOUSTIC FALSE WALLS INSTALLATION ON METAL FRAME

INSTALLING THE METAL FRAME

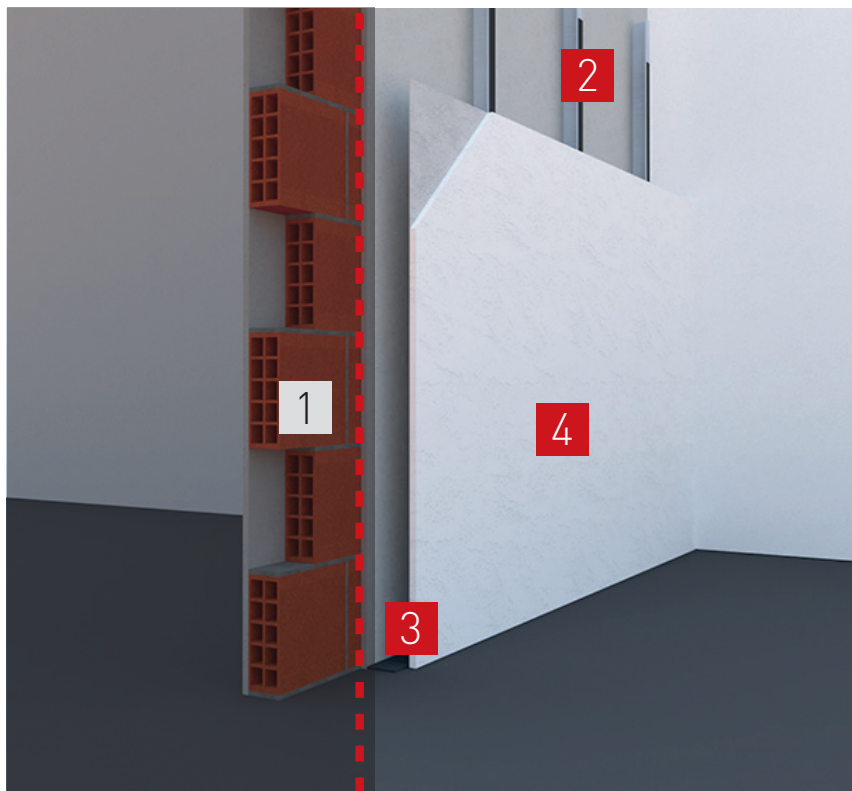
STEP 1

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 THE PANELS

STEP 2

After positioning the IsolGypsum Duo panel on frame, screw it in using self-piercing screws with a nail tip, while taking care to seal and grout all the joints between panels as well as all the joints between panels and the walls and between panels and the ceiling.



1. Existing slab
2. Metal framework for the false ceiling
3. Isolmant Nastro Orditura Cartongesso
4. Panel IsolGypsum Duo

INSTRUCTIONS FOR ACOUSTIC FALSE CEILINGS INSTALLATION ON METAL FRAME

INSTALLING THE METAL FRAMEWORK

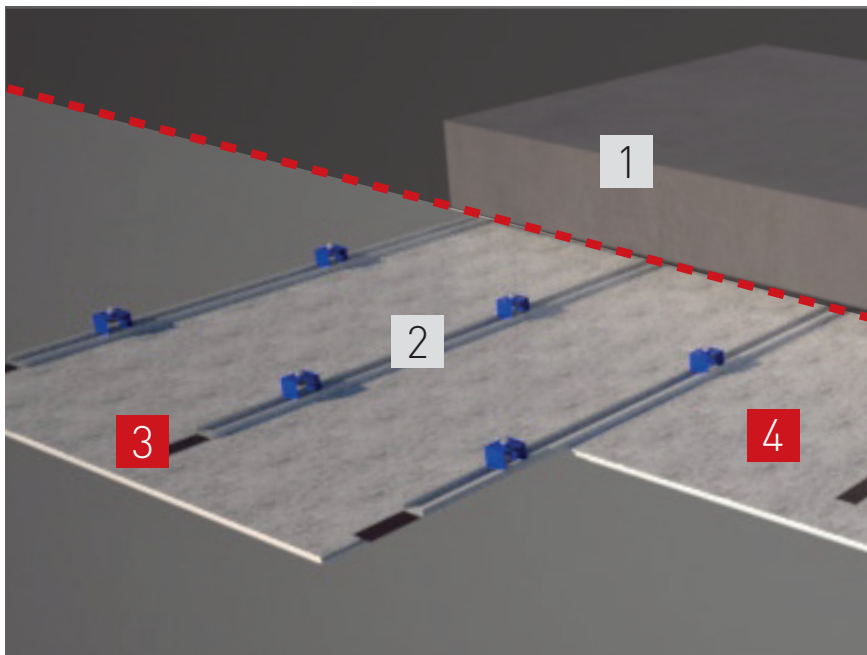
STEP 1

Prepare your low thickness metal framework by using 50/15 c bars and simple clamps on antivibration 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 THE PANELS

STEP 2

Proceed to position the IsolGypsum Duo panel, screwing it with self-drilling screws with a nail tip, then taking care to seal and grout all the joints between the slabs in a workmanlike manner, as well as all joints between the slabs and walls.



- 1. Existing slab
- 2. Metal framework for the false ceiling
- 3. Isolmant Nastro Orditura Cartongesso
- 4. Panel IsolGypsum Duo

ITEM	DESCRIPTION	SIZE	PACKAGE
GYP13DU0M248	IsolGypsum Duo S	1.2 m x 2.0 m (2.4 m²) (plaster)	48 m² (pallet with 20 panels)
GYPWP13DU0M248	IsolGypsum Duo SI	1.2 m x 2.0 m (2.4 m²) (plaster)	48 m² (pallet with 20 panels)
GYPAA13DU0M248	IsolGypsum Duo D+S	1.2 m x 2.0 m (2.4 m²) (plaster)	48 m² (pallet with 20 panels)
GYPHF13DU0M248	IsolGypsum Duo D+R	1.2 m x 2.0 m (2.4 m²) (plaster)	48 m² (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.



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