THE IDEAL SOLUTION TO SIGNIFICANTLY IMPROVE THE SOUNDPROOFING POWER OF INTERIOR WALLS BY COMBINING THE NEED FOR COMFORT WITH RESPECT FOR THE ENVIRONMENT.

ISOLMANT ISOLGYPSUM PERFETTO

WALL INSULATION WITH DIRECT CLADDING

WHAT IS ISOLMANT ISOLGYPSUM PERFETTO

Isolmant IsolGypsum Perfetto is composed of a type A panel (standard panel consisting of a rehydrated hemihydrate gypsum core, coated on both sides with cellulose material) coupled with Isolmant Perfetto (Isolmant's special Fibtec fiber, recycled in technical textile with increasing density along the thickness, with high acoustic and thermal performance, fully environmentally friendly, hypoallergenic and recyclable).

Also available in a version with 10 mm Fibtec fiber.

Nominal thickness 32.5 mm and 22.5 mm (for the version with 10 mm Fibtec fiber).

AREAS OF APPLICATION

IsolGypsum Perfetto is applied by direct cladding on both internal walls (partitioning between separate building units and otherwise) and perimeter walls.

All our products bearing the "**Guaranteed Green Planet**" label are certified and comply with the sustainability criteria of the major environmental protocols. They are also certified according to the highest Italian and international standards.

GREEN FEATURES OF ISOLMANT ISOLGYPSUM PERFETTO

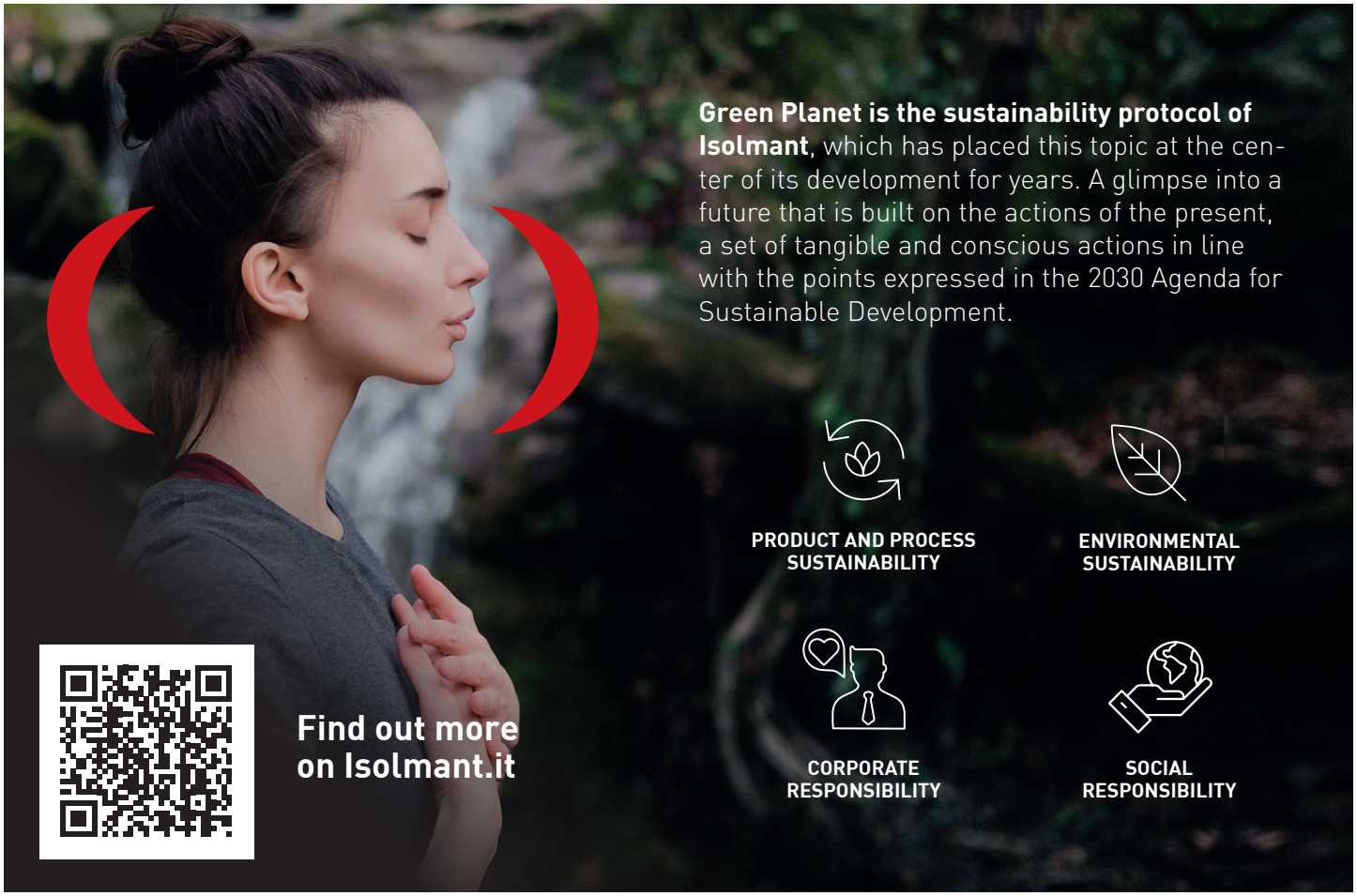
- Sustainable;
- Green;
- Recyclable;
- Environmentally-friendly production;
- **Contains no volatile substances**;
- It helps achieve credits for a building's environmental certification according to the **LEED** or **ITACA** protocols;

ECOLOGICAL

VOC FREE
HEALTHY

RECYCLED

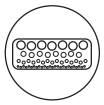
It complies with the requirements defined by CAM for soundproofing and thermal insulation materials with regard to the demand for high soundproofing performance, the percentage of recycled material and the absence of hazardous substances.



ADVANTAGES

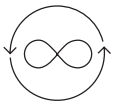

High sound insulation;


High thermal insulation;


At increasing density along the thickness;


Low thermal conductivity;


High mechanical strength;


Unalterable in time and of unlimited durability;


Fire resistance;


Nontoxic and hypoallergenic.

APPLICATION ADVANTAGES


Easy to lay;


Quick and clean laying;


Non-invasive intervention and without demolition;


Available in various sizes.

		ISOLGYPSUM PERFETTO STANDARD	ISOLGYPSUM PERFETTO IDRO	ISOLGYPSUM PERFETTO D+ SALUS	ISOLGYPSUM PERFETTO D+ RESISTO
NOMINAL THICKNESS		32.5 mm	32.5 mm	32.5 mm	32.5 mm
WEIGHT		10.2 kg/m²	10.8 kg/m²	11.2 kg/m²	13.3 kg/m²
ACOUSTIC IMPROVEMENT WITH CLADDING		ΔR_w = 11-15 dB			
SOUND INSULATION TO AIRBORNE NOISE		$R_{w=}$ 52 dB [1] R_w = 54 dB [2] R_w = 56 dB [3]			
THERMAL CONDUCTIVITY		λ = 0.21 W/mK (panel) λ = 0.035 W/mK (insulation)			
THERMAL RESISTANCE		R_t = 0.631 m²K/W			
VAPOR DIFFUSION RESISTANCE FACTOR - dry field		μ = 10 (panel) μ = 2 (insulation)			
EQUIVALENT AIR THICKNESS		S_d = 0.165 m			
REACTION TO FIRE CLASS		Euroclass B-s1,d0			
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
NON STANDARD		≤ 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		**For acoustic insulation products, harmonized standards for CE marking are NOT CURRENTLY AVAILABLE. This means that Isolmant products are currently NOT REQUIRED to be CE MARKED, nor to have a DOP (declaration of performance) drawn up. 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 Istituto Giordano Test Report No. 417307

2 ITC Test Report No. 5318/RP/11

3 RICERT Test Report No. 11-5542-004

SPECIFICATION ITEM:

Insulation layer consisting of a technical textile fiberboard with increasing density along the thickness, 10 or 20 mm thick, coupled with coated gypsum panel, 12.5 mm thick, type A, D, H2, F, I, R (IsolGypsum Perfetto S/SI/D+R/D+S type). Nominal thickness 22.5 or 32.5 mm.

INSTRUCTIONS FOR DIRECT CLADDING BY BONDING

SUPPORT PREPARATION

STEP 1

IsolGypsum Perfetto can only be bonded on walls that are free from traces of dust, grease and moisture. In the case of very porous surfaces, e.g., exposed masonry, it is advisable to wet the masonry surface or apply a coat of appropriate water-dispersion resin treatment to prevent water from being taken away from the gypsum-based glue before it has begun to set. Smooth surfaces, such as concrete walls or prefabricated products obtained with metal formwork, should be treated with appropriate quartz powder-based sealing primer. Masonry plastered with hydraulic mortar without surface finishing treatment should be probed for the entire surface in order to detect cavities and any detached areas of plaster, which should then be removed and restored. The entire surface thus restored should be treated with insulating primer or wetted (photo A). Generally covered walls must be stripped of their covering at the bonding points, which must be bonded directly to the masonry.

STEP 2

PANEL CUTTING

After having traced the exact size of the cut, you must proceed by first cutting the insulating layer and then the cardboard, and then break the panel itself with a sharp blow (photo B-C).

STEP 3.1

FIXING THE PANELS WITH GYPSUM-BASED GLUE

IsolGypsum Perfetto panels should be applied by cladding onto the support using a "gypsum-based glue" (such as Knauf Perlifix) to be prepared according to the appropriate instructions for use. However, it will always be necessary to check that the glue chosen is suitable for use on the support to which Isolgypsum Perfetto will need to be glued. Glue should be placed on the side of the insulation fiber crosswise in strips about 30 cm wide placed about 40 cm apart. Four glue pads ("plots") about 10/12 cm in diameter equidistant from each other should then be applied to each strip. The height of the "plots" should not exceed 3 cm (photo D). Indicative glue consumption may vary from 3 to 4 kg/m, depending on the flatness of the support.

STEP 3.2

FIXING THE PANELS WITH ADHESIVE SEALANT

IsolGypsum Perfetto sheets may be applied by cladding onto the support using a high-performance MS polymer-based elastic sealing adhesive with a suction-cup effect (such as Isolmant Incollafacile). However, it will always be necessary to check that the sealant is suitable for use on the support to which IsolGypsum Perfetto is to be glued. In this regard, it should be noted that in the presence of moisture or porous surfaces, its adhesion can be improved with the application of appropriate primer. The sealant should be placed, using a special hand gun or pneumatic gun, on the side of the insulation material in narrow, vertical strips (approx. 10 mm wide) about 20 cm apart. The height of the laid sealant should be such that after pressing, its thickness is not less than 1-2 mm (photo E). Indicative sealant consumption will be about 1 cartridge per 1.2 x 2 m panel. Once the sealant is applied, the panel should be clad onto the support, with a light pressure, within 10-15 minutes.

STEP 4

APPLYING THE PANELS

The panels should be applied to the support once the pre-laying steps consisting of ground and ceiling laying out of the panel footprint and subsequent laying out on the ground of the Tagliamuro IsolGypsum strip (photo F) have been completed. At the connection between the panels and the ceiling and the non-plasterboard walls adjacent to them, a separating tape (half adhesive and half oiled) should be placed, using the adhesive side inward, so as to create a sliding joint in order to prevent the formation of cracks and/or multiform cracks following the subsequent grouting phase. The panels, with appropriate formations (photo G-H) will then be placed, exerting a slight pressure, against the existing masonry sequentially. In laying, verticality (through the use of a level) and flatness should be checked for each panel in order to ensure perfect alignment with floor and ceiling traces. Flatness may be achieved by stressing the panels on the outer surface with light strokes of the hand or with a metal ruler of appropriate length so as to equalize the flattening of the "plots" of glue or sealing adhesive. It will then be necessary to carefully pull the adjacent panels side by side to prevent the adhesive mortar from leaking out and thus eliminate heat and/or acoustic bridges, and to wait for the adhesive to set and then proceed to the joint sealing and drying operations.

STEP 5

FORMING CORNERS

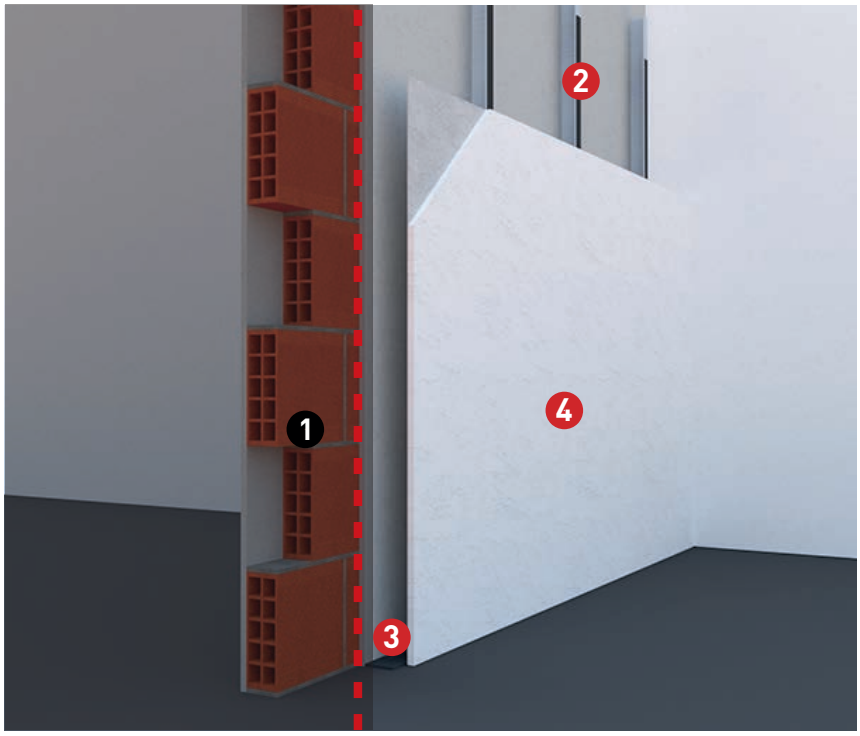
at corners it will be necessary to cut into the surface of the plate by removing a strip of coated gypsum equal to the total thickness of IsolGypsum Perfetto so as to leave the insulating fiber located on the back of the panel visible. It will then be necessary to place the second sheet directly in contact with the fiber, thus ensuring continuity of the insulation and avoiding heat and acoustic bridges. (photo I)

STEP 6

GROUTING OF PANELS

Grouting of joints should be done by using suitable putty and micro-perforated paper as joint covers and will be done in three coats. In the first coat, the putty should be spread with a steel trowel over the joints of the panels, taking care to fill the joints abundantly so as to reach the level of the surface of the panels and thus prepare the suitable support for the laying of the joint cover. The "micro-perforated paper joint-covering tape" (to be preferred to micro-perforated mesh) will then be immediately laid on the grouted joints in order to impart adequate mechanical strength to the grouting due to the absorption of stresses that may occur on the joint due to micro-movements of the support, shocks and induced mechanical stresses, or due to thermo-hygrometric stresses. The micro-perforated paper should be laid with the rough side facing the panel at the center of the joint (the putty underneath should be plentiful to allow the paper not to peel off) and should be laid by exerting adequate pressure (photo L) with a steel trowel,taking care to avoid air bubbles (photo M). This operation will also remove excess putty and widen the grouting to give more uniformity to the joints. After making sure that this layer is completely dry and that there are no imperfections or micro-irregularities (fig. N), the second coat of putty can be applied, which should extend for a width sufficient to bring the grouted surface to the same plane as the cardboard surface. Finally, following the drying of this second layer as well, the third and final coat of putty can be applied, which will be very thin. Finally, it will be necessary to trim off the overhanging excess of the hexamer tape and proceed with finishing as a normal coated gypsum panel wall. The approximate consumption of putty will be 0.4-0.5 kg/ m^2.

INSTRUCTIONS FOR THE INSTALLATION OF SUPPORTING DRYWALLS ON FRAME



1 Existing wall

2 Metal frame desolidarized with Isolmant Fascia Nastro

3 Isolmant Fascia Tagliamuro IsolGypsum

4 Isolmant IsolGypsum Perfetto panel (with 10 mm Fibtec fiber)

LAYING THE METAL STRUCTURE

STEP 1

Desolidarize the metal frame with respect to the floor, the floor slab, the adjacent perimeter walls and the plasterboard panels adjacent to it by applying Isolmant Nastro Orditura Cartongesso - physically cross-linked polyethylene strips, 3.5 mm thick. In order to contain flanking losses, it is recommended, if possible, to place the frame at a distance of 1-2 cm from the existing wall.

PANEL LAYING

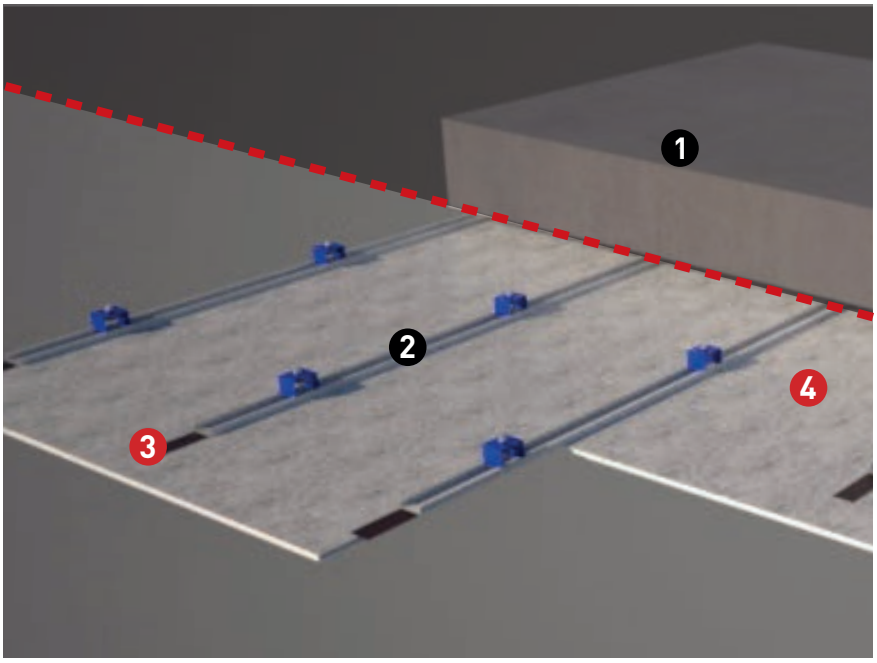
STEP 2

Place, on the frame, the "IsolGypsum Perfetto 10 mm avvitabile" panel, screwing it in with the use of self-piercing screws with a nail tip, taking care then to seal and grout in a workmanlike manner all joints between panels as well as all joints between panels and walls and between panels and ceiling.

CAUTIONS:

• FOR INSTALLATION ON A METAL FRAME, IT IS RECOMMENDED THAT THE FINAL ADJUSTMENT AND TIGHTENING OF THE SCREW BE CARRIED OUT BY HAND IN ORDER TO PREVENT THE PLASTERBOARD CLADDING FROM BREAKING THROUGH For further laying instructions Refer to "Technical Notebook 2 - Cladding" downloadable from www.isolmant.it

INSTRUCTIONS FOR THE INSTALLATION OF FALSE CEILING ON THE FRAME



1 Existing slab

2 Metal frame for the false ceiling

3 Isolmant Nastro Orditura Cartongesso

4 Isolmant IsolGypsum Perfetto panel (with 10 mm Fibtec fiber)

LAYING THE METAL STRUCTURE — STEP 1

Build the low-thickness metal frame using 50/15 C-profiles and simple hooks, desolidarize the structure with Isolmant Nastro Orditura Cartongesso, in order to avoid direct contact of the metal structure with the coated gypsum panels.

PANEL LAYING — STEP 2

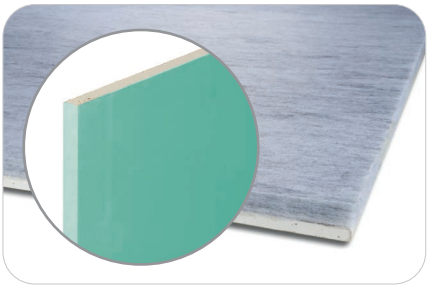
Place the "IsolGypsum Perfetto 10 mm avvitabile" panel, screwing it in with the use of self-piercing screws with a nail tip, taking care then to seal and grout in a workmanlike manner all joints between panels as well as all joints between panels and walls.

CAUTIONS:

- IT IS NOT POSSIBLE TO USE ISOLGYPSUM PERFETTO FOR CEILING CLADDING

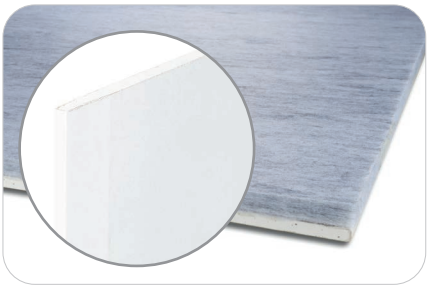
Refer to "Technical Notebook 2 - Cladding Laying" for further laying instructions, which can be downloaded from www.isolmant.it

Depending on the needs of the construction site or the particular features of the areas to be restored, other versions of Isolmant IsolGypsum Perfetto may be requested, i.e. consisting of panels that have specific technical peculiarities.



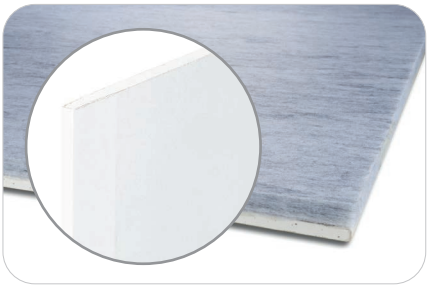
IsolGypsum Perfetto **IDRO**

Isolmant Perfetto 10 or 20 mm coupled with a type H2 panel, **usable in humid environments such as bathrooms**. The panel is characterized by very low water absorption and excellent sealing at high humidity levels. Green-colored cardboard coating on the exposed face.



IsolGypsum Perfetto **D+ SALUS**

Isolmant Perfetto 10 or 20 mm coupled with a type D panel, with higher density core gypsum added with glass fibers that give the product a high degree of surface hardness and mechanical strength. Thanks to the Activ'Air® technology, the panel can absorb and neutralize up to 70% of the formaldehyde in indoor air, **for healthier living environments**.



IsolGypsum Perfetto **D+ RESISTO**

Isolmant Perfetto 10 or 20 mm coupled with a type D, F, I, R panel, with higher density core gypsum added with glass fibers that give 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 helps to increase soundproofing power.

CODE	DESCRIPTION	SIZE	PACK
GYPS13FIB20M248	IsolGypsum Perfetto S	1.2 m x 2.0 m (2.4 m^2) panels	48 m^2 (pallet of 20 panels)
GYPWP13F20M248	IsolGypsum Perfetto SI	1.2 m x 2.0 m (2.4 m^2) panels	48 m^2 (pallet of 20 panels)
GYPAAFIB20M248	IsolGypsum Perfetto D+S	1.2 m x 2.0 m (2.4 m^2) panels	48 m^2 (pallet of 20 panels)
GYPHFFIB20M248	IsolGypsum Perfetto D+R	1.2 m x 2.0 m (2.4 m^2) panels	48 m^2 (pallet of 20 panels)
GYPS13FIB10M248	IsolGypsum Perfetto S 10 mm avvitabile	1.2 m x 2.0 m (2.4 m^2) panels	48 m^2 (pallet of 20 panels)
GYPWP13F10M248	IsolGypsum Perfetto SI 10 mm avvitabile	1.2 m x 2.0 m (2.4 m^2) panels	48 m^2 (pallet of 20 panels)
GYPAAFIB10M248	IsolGypsum Perfetto D+S 10 mm avvitabile	1.2 m x 2.0 m (2.4 m^2) panels	48 m^2 (pallet of 20 panels)
GYPHFFIB10M248	IsolGypsum Perfetto D+R 10 mm avvitabile	1.2 m x 2.0 m (2.4 m^2) panels	48 m^2 (pallet of 20 panels)

CAUTIONS:

* This data sheet does not constitute a specification and, since it consists of several pages, you must be sure to consult the complete document. The directions provided are based on our current best experience but are nonetheless for general information only. The user will be responsible for determining whether the product is suitable for its intended use and for assuming all responsibility associated with its use.

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

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

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