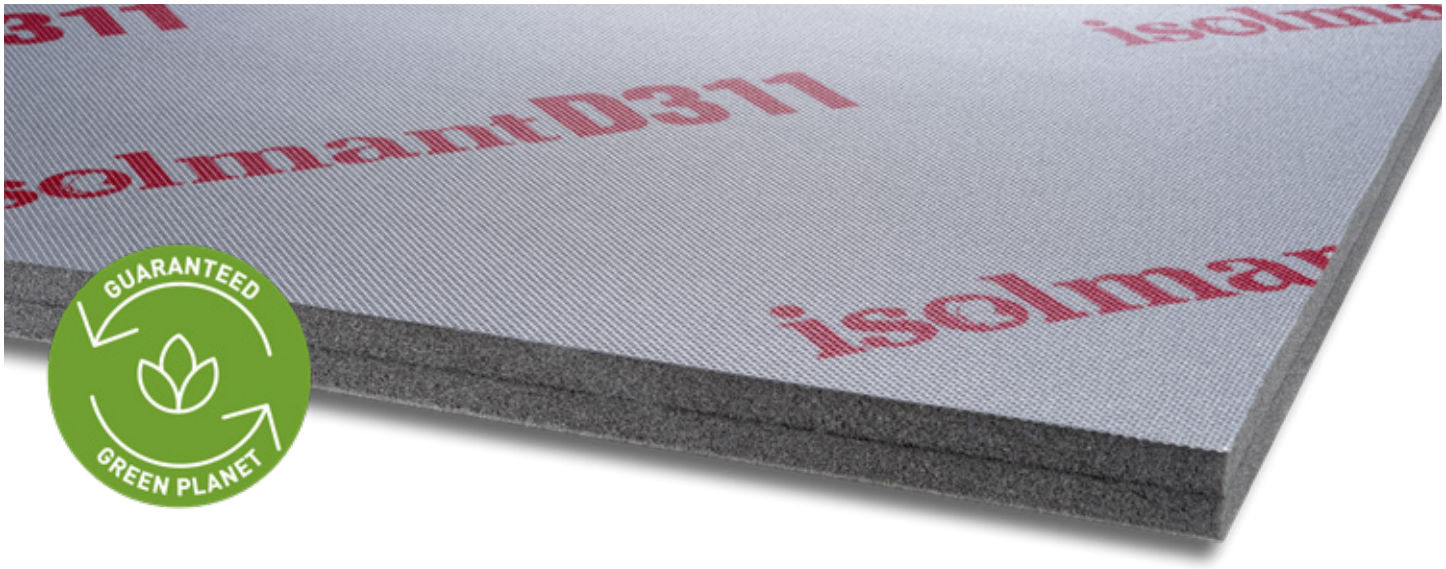


ISOLMANT D311

UNDERSCREED INSULATION

Specific for acoustic and thermal under screed insulation in single-layer structures with ⩾ 7 cm finish screed especially on piloty floors

WHAT IS ISOLMANT D311

Resilient layer made of double-layer Isolmant polyethylene joined on the upper side to a high resistance aluminate embossed anti-tearing film. It provides excellent impact sound and airborne insulation for horizontal partitions. Nominal thickness 22 mm.

SPECIFIC APPLICATIONS

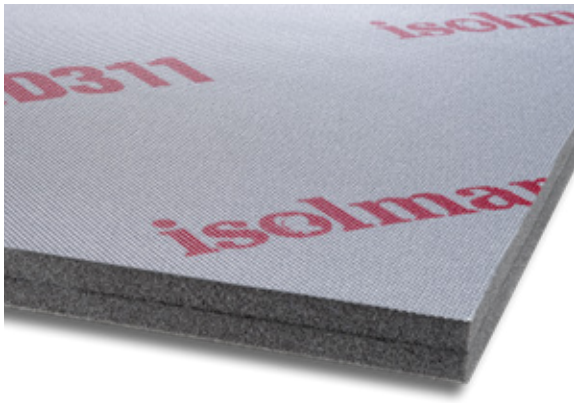
Isolmant D311 is specifically for the construction of "floating screeds" in accordance with UNI 11516:2013, in the presence of any type of floor, particularly on pilotis floors since, thanks to its thickness, it contributes significantly to the thermal insulation performance of the structure.
This product is recommended for good acoustic insulation to footfall as well as for its anti-tear characteristics. It requires a finishing screed at least 7 cm thick. In the case of disconnecting a floating screed from the perimeter walls, we recommend using the perimeter strip Isolmant Fascia Perimetrale.

Laying Isolmant D311 with the aluminized side facing upward.

CAM MINIMUM ENVIRONMENTAL CRITERIA
SUSTAINABLE

VOC FREE
HEALTHY

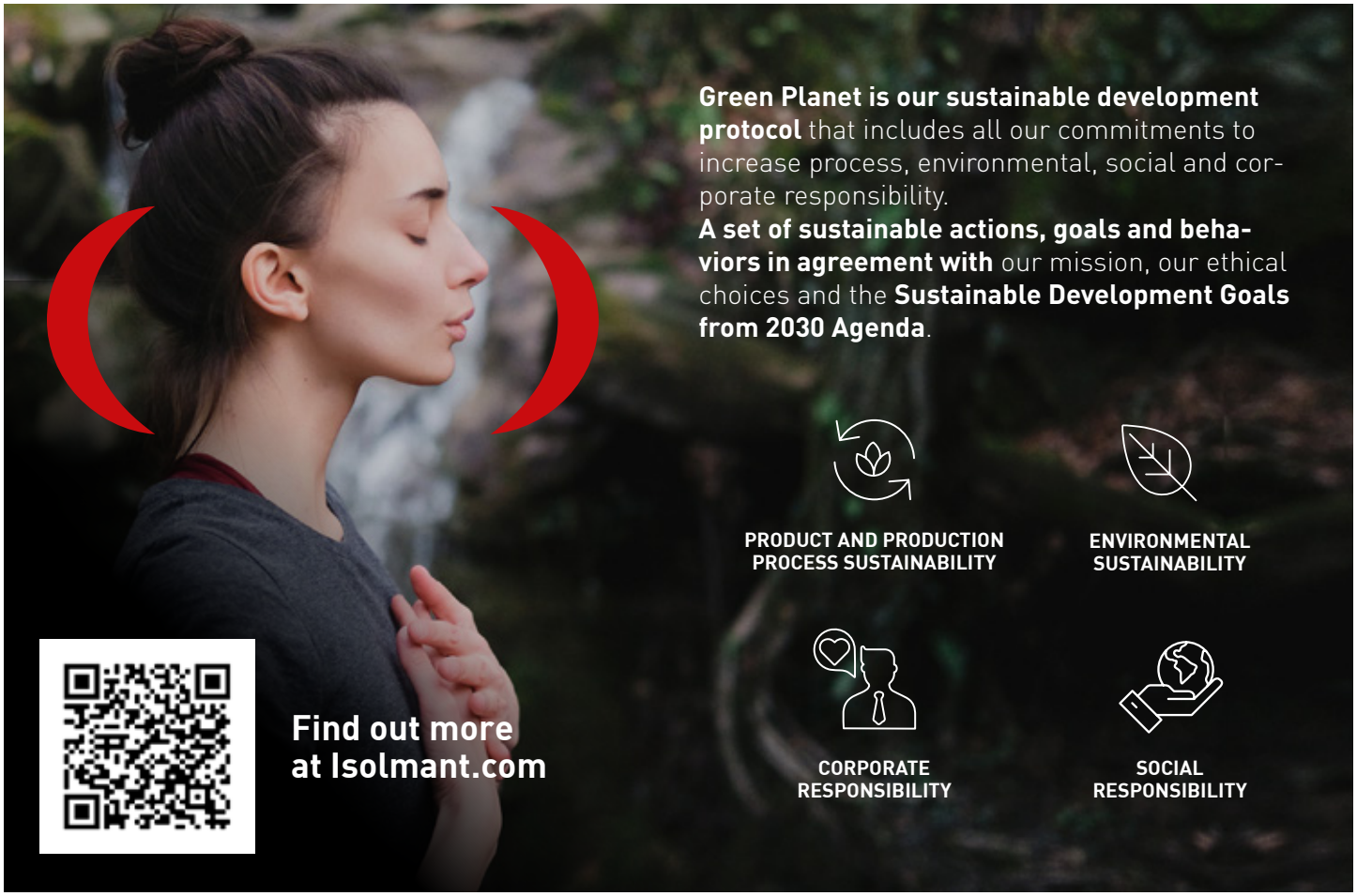
All our products with the "**Guaranteed Green Planet**" logo are compliant with the sustainability criteria of the most important environmental protocols and certified according to the major national and international standards.



GREEN FEATURES OF ISOLMANT D311

- **Volatile substances free (VOC A+).**
- **Environmentally friendly production.**
- 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

- Good sound insulation against impact noise and air-borne noise.
- This product allows compliance with thermal transmittance limits for inter-floor slabs when properly combined with the floor and finishing screed.
- It can be used in both renovation and new construction.
- High mechanical and tear resistance.
- Low thermal conductivity.
- Inalterable in time.
- Unlimited duration.
- Contact with water does not affect performance or characteristics.
- Resistant to mould or insects

ADVANTAGE FOR INSTALLATION

- Easy installation.

ISOLMANT D311 > TECHNICAL SPECIFICATIONS

> To be installed with the aluminate-coated side facing upwards.

NOMINAL THICKNESS:	22 mm
DYNAMIC STIFFNESS:	s'= 37 MN/m^3 [1]
IMPACT SOUND INSULATION:	ΔL_w = 26 dB [2]
AIRBORNE NOISE INSULATION:	R_w = 58 dB [3]
COMPRESSION CLASS:	CP2 [4]
UNDER LOAD DEFLECTION:	4,6% aT 2 kPa
CONDUCTIVITY:	λ= 0.037 W/mK
THERMAL RESISTANCE:	R_t = 0,595 m^{2}K/W
SPECIFIC HEAT CAPACITY:	c = 2100 J/kgK
VAPOUR RESISTANCE:	μ = 3600
EQUIVALENT AIR LAYER THICKNESS:	S_d = 79 m
EMISSION OF VOLATILE ORGANIC COMPOUNDS:	VOC A+ [5]
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:	Panels of: 1.00 m x 1.50 m (h x L) = 1.50 m^2 After carefully joining the sheets, it is advisable to seal them with Isolmant Nastro Alluminio.
PACKAGE:	Packs of 15 panels (equal to 22.5 m^2)

(1) laboratory LAPI Test Report No. 959.11UN0020/08

(2) Value calculated according to UNI EN 12354-2 and UNI TR 11175 standards on the following stratigraphy:
20+4 concrete slab with lightened 7cm finishing screed .

(3) Value certified according to current UNI EN ISO 12354-1 and UNITR 11175 standards on the following stratigraphy:
20+4 concrete slab with lightened 7cm finishing screed .

(4) laboratory LAPI Test Report No.959.11UN0050/08

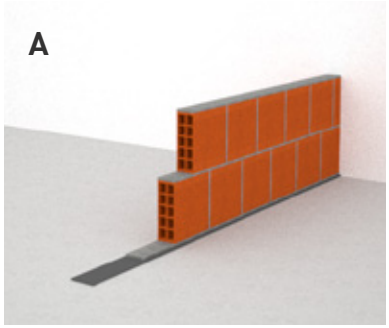
(5) Istituto Giordano test report no. 376851

ITEM SPECIFICATIONS

Resilient layer made of closed-cell, cross-linked polyethylene foam, laminated on the upper side with an aluminate, embossed film with an anti- tearfeature (Isolmant D 311 type). To be installed with the aluminate-coated side facing upwards. Product with overlaps. Nominal thickness 22 mm. DYNAMIC STIFFNESS 37 MN/m^3.

STEP 1

INSTALLING FASCIA TAGLIAMURO



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 product is available in different thicknesses and densities depending on the weight of the partitions (Fig.A)

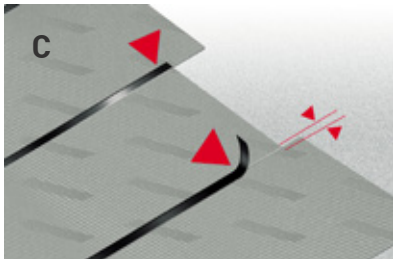
STEP 2

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).

STEP 3

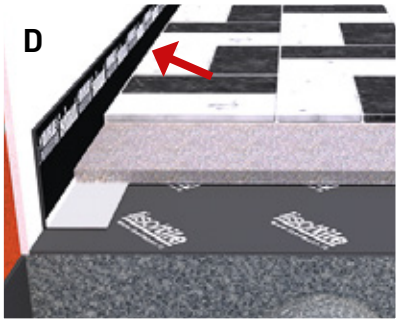
INSTALLING ISOLMANT D311 RESILIENT LAYER

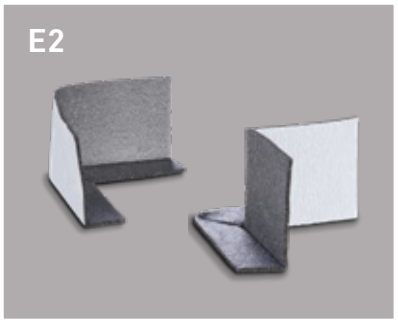


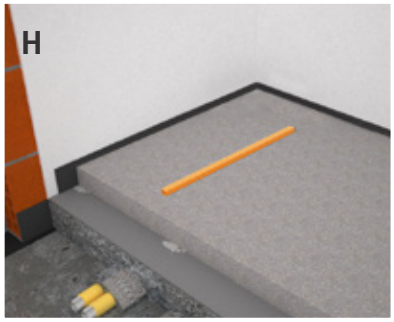
Since Isolmant D311 has an anti-tear surface layer, it can be used also in single-layer substrate. In this case, since no levelling screed is provided (which is always advisable), Isolmant D311 should be laid directly onto the slab (which must have a flat, even surface) and then the systems must be laid in order to avoid the risk of tearing and the possible formation of air bubbles underneath Isolmant D311 sheets must be accurately joined and sealed using Isolmant Nastro Alluminio (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 - 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 flanking 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.







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 regard to the thickness of the finishing screed, we recommend a minimum thickness of no less than 7 cm. If the thickness is less than 7 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 (dis. 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 flanking strip 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 flanking strip, ensuring the system elastic functioning. In particular, a tiled skirting board 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 de-grout.

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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