



# ISOLMANT ISOLTILE BV

## UNDER-SCREED AND UNDERFLOOR INSULATION

Technologically advanced and innovative product specifically designed for underfloor sound insulation in structures with a finishing screed of up to 3 cm (average thickness) and beneath flooring.  
Version with integrated vapor barrier.

### WHAT IS ISOLMANT ISOLTILE BV

Low-thickness, desolidarizing and reinforcing elastodynamic resilient acoustic layer, designed for under-screed and underfloor applications (ceramic, stone, parquet), where a vapour barrier function is also required. Install with the screen-printed side (featuring the Isolmant logo) facing upward. Thickness 2 mm.

### COMPATIBLE FLOORING\*

LAMINATE - (6 to 8 mm thick)	✗
LAMINATE - (Sp. 8 mm th.)	✗
LVT, SPC	✗
PREFINISHED PARQUET - 2 layers	✓
PREFINISHED PARQUET - 3 layers	✓
T&G SOLID WOOD FLOORING (thickness < 16 mm – plank width < 16 cm)	✓
CERAMICS	✓

\* General indications valid for traditional installation supports only

### AREAS OF APPLICATION

#### 1. UNDER-SCREED APPLICATION

**1.1** Application under low-thickness screeds < 3 cm (with or without underfloor heating).

#### 2. UNDERFLOOR APPLICATION

**2.1** Application underflooring – ceramic, stone material, parquet – on screed (with or without underfloor heating).

**2.2** Application underflooring – ceramic, stone material, parquet – directly on low-thickness/low-inertia radiant heating system.



SUSTAINABLE



HEALTHY



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.

## ISOLMANT ISOLTILE BV > UNDER-SCREED LAYING: TECHNICAL SPECIFICATIONS

NOMINAL THICKNESS:	2 mm
IMPACT SOUND INSULATION IN UNDER SCREED INSTALLATION:	$\Delta L_w = 17 \text{ dB}^{(1)}$
COMPRESSIVE STRENGTH:	127 kPa (0.5 mm of deformation)
COMPRESSIVE STRENGTH (%):	deformation 10% at 96 kPa deformation 25% at 127 kPa deformation 40% at 229 kPa deformation 50% at 313 kPa
COMPRESSIVE CREEP:	> 50 kPa (0.5 mm of deformation)
THERMAL CONDUCTIVITY:	$\lambda = 0.037 \text{ W/mK}$
RESISTENZA TERMICA:	$R_t = 0.054 \text{ m}^2\text{K/W}$
EQUIVALENT AIR THICKNESS ISOLTILE CLASSIC:	$S_d > 40 \text{ m}$
REACTION TO FIRE CLASS:	$C_{fl-s1}^{(2)}$
EMISSION OF VOLATILE ORGANIC COMPOUNDS:	VOC A+ <sup>(3)</sup> Indoor Air Comfort GOLD <sup>(4)</sup>
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.
SIZE:	Rolls of: 1.00 m x 20 m (h x L) = 20 m <sup>2</sup>
PACKAGE:	Individual rolls including installation kit: N.1 Fascia per giunte: h 7.5 cm x L 20 m N.2 Fascia perimetrale: h 3 cm x L 20 m

(1) Isolmant test report no.1102/2019

(3) Istituto Giordano test report no. 379083

(2) Istituto Giordano test report no. 362272

(4) Eurofins test report no. 392-2025-00159103\_A\_EN

### ITEM SPECIFICATIONS

Resilient elastodynamic acoustic layer with low thickness, desolidarising and reinforcing, designed for underflooring and underscreed applications on tile, stone, wooden flooring. Product made of Isolmant HD expanded polypropylene material which is coated on the upper side with special Fibtec XP1 fabric (black screen-printed and calendered polypropylene fabric for technical application) and on the lower side with Fibtec XF2 (silver screen and calendered polypropylene fabric with an integrated protection against vapour application (Isolmant BV type). Nominal thickness 2 mm, density 82 kg/m<sup>3</sup>, thermal conductivity 0.037 W/mK, equivalent air thickness  $S_d > 40$ . To be installed with the screen-printed side facing upwards. Results to VOC emission test: Indoor Air Comfort Gold.



# ISOLMANT ISOLTILE BV > UNDERFLOOR LAYING: TECHNICAL SPECIFICATIONS | 1

		VALUE	ADDITIONAL INFORMATION	STANDARD
Acoustic	 NOMINAL THICKNESS:	2 mm		EN 823
	 IMPACT SOUND INSULATION (IS):	$\Delta L_w = 16 \text{ dB}^{(1)}$	EPLF MMFA: superior performance	ISO 10140-3
Mechanic	 COMPRESSIVE STRENGTH (CS):	127 kPa (0.5 mm deformation)	CS2 class	ISO 844
	 COMPRESSIVE STRENGTH (%):	Deformation 10% at 96 kPa Deformation 25% at 127 kPa Deformation 40% at 229 kPa Deformation 50% at 313 kPa		ISO 844
	 COMPRESSIVE CREEP (CC)	> 50 kPa (max carico con def. < 0.5 mm in 10 anni)	CC3 class EPLF: superior performance	EN 1606
	 DYNAMIC LOAD (DL):	200.000 cycles (at 75 kPa)	DL2 class EPLF MMFA: superior performance	EN 13793
	 CONFORMABILITY (PC):	> 1.5 mm	PC2	EN ISO 868
Thermo hygrometric	 THERMAL RESISTANCE (RT):	$R_t = 0.054 \text{ m}^2\text{K/W}$	High thermal resistance	ISO 2581
	 WATER VAPOUR RESISTANCE (SD):	$S_d > 40 \text{ m}$	method A @23°C from 0% to 50% relative humidity	EN 12086
	 REACTION TO FIRE CLASS:	$C_{fi} - s1^{(2)}$		EN 13501-1
	 EMISSION OF VOLATILE ORGANIC COMPOUNDS:	VOC A+ <sup>(3)</sup> Indoor Air Comfort GOLD <sup>(4)</sup>		ISO 16000-9

(1) Ri.Cert. test report no.11-3445-0 09

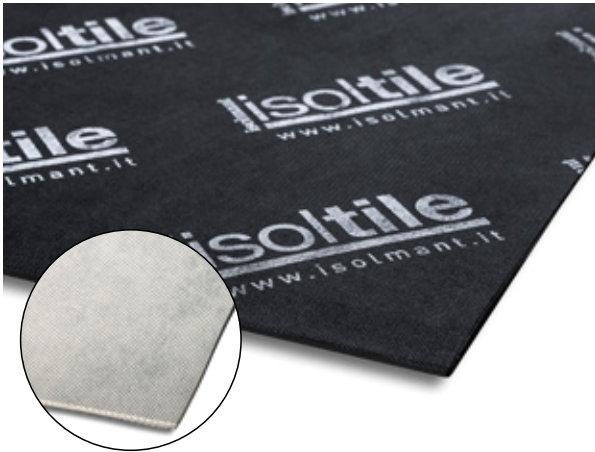
(2) Istituto Giordano test report no. 362272

(3) Istituto Giordano test report no. 379083

	<b>CE MARKING:</b>	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.
	<b>SIZE:</b>	Rolls of: 1.00 m x 20 m (h x L) = 20 m <sup>2</sup>
	<b>PACKAGE:</b>	Individual rolls including installation kit: n. 1 Fascia per giunte : h 7.5 cm x L 20 m n. 2 Fasce perimetrali: h 3 cm x L 10 m

**ITEM SPECIFICATIONS**

Resilient elastodynamic acoustic layer with low thickness, desolidarising and reinforcing, designed for underflooring and underscreed applications on tile, stone, wooden flooring. Product made of Isolmant HD expanded polypropylene material which is coated on the upper side with special Fibtec XP1 fabric (black screen-printed and calendered polypropylene fabric for technical application) and on the lower side with Fibtec XF2 (silver screen and calendered polypropylene fabric with an integrated protection against vapour application (Isolmant BV type). Nominal thickness 2 mm, density 82 kg/m<sup>3</sup>, thermal conductivity 0.037 W/mK, equivalent air thickness  $S_d > 40$ . To be installed with the screen-printed side facing upwards. Results to VOC emission test: Indoor Air Comfort Gold.



## GREEN FEATURES OF ISOLMANT ISOLTILE BV

- **Results to VOC emission test:**
  - VOC A+;
  - Indoor Air Comfort GOLD.
- **Manufactured with low environmental impact.**
- 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.

This product complies with the requirements defined by CAM Edilizia for acoustic and thermal insulation materials regarding 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

-  It significantly enhances impact sound insulation, making it ideal for both renovation projects and new constructions.
-  Integrated vapor barrier.
-  Suitable for use in all settings, including residential and commercial environments.
-  Its low thickness eliminates the need for changes to existing floor elevations.
-  Low thermal resistance (making it suitable for use with underfloor heating systems, even when installed beneath the flooring).
-  Allows glued installation of finishes directly onto low-thickness/low-inertia radiant floors.

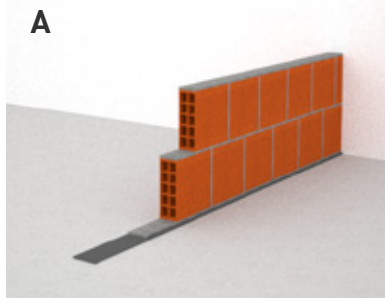
### APPLICATION ADVANTAGES

-  Easy to install.
-  Allows the expansion joint not to be replicated at the location of the shrinkage joint.
-  Product supplied with accessories for proper installation.
-  Provides protection against cracking in large-format ceramic flooring.
-  Does not require the use of special adhesives.

## APPLICATION UNDER LOW THICKNESS SCREED $\leq 3\text{cm}$ (with or without underfloor heating) IF THE PRODUCT IS REQUIRED TO BE A VAPOUR BARRIER.

### 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 disjoin 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 (dis. B).



### STEP 3

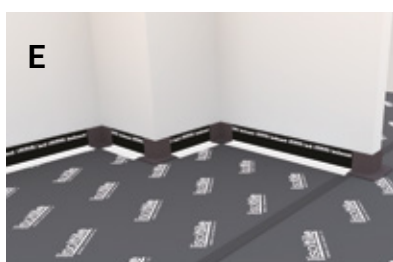
#### PREPARING THE SCREED



The surface where IsolTile BV will be laid should be load-bearing, flat, adequately even, clean and free from debris and oil (Fig. C). Nevertheless, the installer will assess the suitability of the surface when laying glue and sheets.

## STEP 4 LAYING THE FIRST LAYER OF GLUE

IsolTile BV does not require the use of special glues; it is recommended to use adhesives suitable for the laying surface and the finish that will be installed; the same adhesive is used both between the screed and IsolTile BV and between IsolTile BV and the finish (it is recommended to use a class C2E cementitious adhesive with ceramic and stone finishes and two-component epoxy-polyurethane adhesives with wooden flooring). Apply the first layer of glue in the proper quantity using a fine trowel knife (3/4 mm) following the instructions set out by the technical reference standards (Fig. D).



## LAYING THE SHEETS

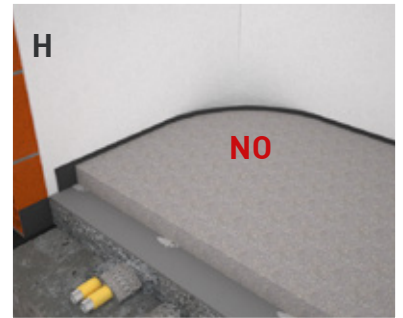
## STEP 5

Roll out the IsolTile BV sheet on the layer of glue already spread taking into consideration how long it has been open. Remove any air bubbles under the IsolTile BV sheets so they adhere perfectly to the surface. To this end, it is recommended that you press the sheets using a roller for flexible flooring. During installation, the IsolTile BV sheets should be laid close without overlapping in order to ensure a continuous insulation layer and avoid acoustic bridges. The joints between the sheets must also be taped with the joint strip provided. (Dis.E-F).



**STEP 6** **INSTALLING FASCIA PERIMETRALE**

To avoid acoustic bridges, the use of Isolmant Fascia Perimetrale Tecnica Doppio Spessore is recommended. This product should be installed along the entire perimeter of the room without interruption. (Fig.G) The use of Fascia Perimetrale Tecnica Doppio Spessore on the walls is necessary to separate the screed and subsequent finish from the masonry. The excess of the strip over the screed must be trimmed after laying the floor (Fig. H). 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. It is also necessary to avoid a gap between the band and the walls at the corners (Fig. I) 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. L) 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.



**SCREED CONSTRUCTION**

The finishing screed must guarantee adequate mechanical resistance according to the actual laying and loading conditions (Fig. M). 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).

**STEP 7**

### STEP 8 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. N). 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. 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. If the joint were rigid, it would prevent the floor from floating and would de-grout.



**UNDER FLOORING APPLICATION (tile, stone, wooden flooring) ON SCREED (with or without underfloor heating) IF THE PRODUCT IS NOT REQUIRED TO BE A VAPOUR BARRIER.**



## PREPARING THE SCREED

## STEP 1

The surface where IsolTile BV will be laid should be load-bearing, flat, adequately even, clean and free from debris and oil (Fig.A). Nevertheless, the tiler will assess the suitability of the surface when laying glue and sheets.

## STEP 2 INSTALLING FASCIA PERIMETRALE

To avoid acoustic bridges, we recommend the use of Isolmant Fascia Perimetrale IsolTile, that comes in the package, to be laid along the entire perimeter of the room without interruption (Fig. B-C) (when a flanking strip of sufficient height to exceed the floor level has not already been laid). The use of the appropriate Fascia Perimetrale on the walls is necessary to separate the tile or stone finish from the masonry (it is not required for the installation of parquet).



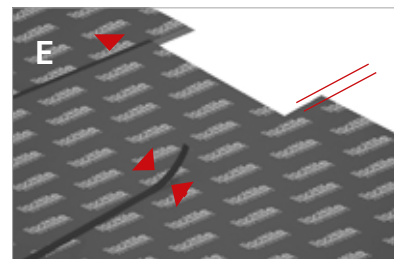
## LAYING THE FIRST LAYER OF GLUE

## STEP 3

IsolTile BV does not require the use of special glues; it is recommended to use adhesives suitable for the laying surface and the finish that will be installed; the same adhesive is used both between the screed and IsolTile BV and between IsolTile BV and the finish (it is recommended to use a class C2E cementitious adhesive with tile and stone finishes and two-component epoxy-polyurethane adhesives with wooden flooring). Apply the first layer of glue in the proper quantity using a fine trowel knife (3/4 mm) following the instructions set out by the technical reference standards (Fig. D).

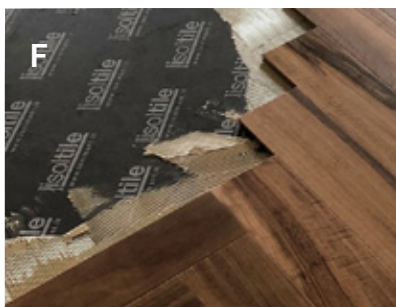
**STEP 4** LAYING THE SHEETS

Roll out the IsolTile BV sheet on the layer of glue already spread taking into consideration how long it has been open. Remove any air bubbles under the IsolTile BV sheets so they adhere perfectly to the surface. To this end, it is recommended you press the sheets using a roller for flexible flooring. During installation, the IsolTile BV sheets should be laid close without overlapping in order to ensure a continuous insulation layer and avoid acoustic bridges. The joints between the sheets must also be taped with the Fascia per Giunte provided. (Fig.E).



**INSTALLING FLOORING**

**STEP 5**



In general, you should wait 24 hours after you finish the preparation before installing the flooring. However these are only general guidelines and the installer will decide on the time required for the procedure according to the glue used. The tiles or parquet (with the exception of solid parquet to be sanded on site) can be glued directly onto IsolTile BV by applying a suitable layer of adhesive (we recommend using a class C2E cement-based adhesive with ceramic and stone finishes and two-component epoxy-polyurethane glues with parquet) laid according to the rules of the art and to the instructions provided by the manufacturer (Fig. F). In particular, the parquet must be laid in suitable temperature and humidity conditions, in strict compliance with the specifications for laying wooden floors. The sector's standards and regulations establish that the laying environment must guarantee environmental conditions within the values of max. RH 45%-60%, T°C 18°C - 25°C, the necessary conditions for maintaining the correct wood/environment balance established by the reference European standard UNI EN 13489:18 (7%+2%). In addition, the screed on which the floor system is laid must have a humidity percentage of no more than <2% in the case of a screed/laying surface without a heating system, <1.7% in the case of underfloor heating. IsolTile BV is a watertight covering: adequate drying time of the adhesive must be considered in relation to climatic and site conditions. It is recommended to let the adhesive dry from 36 to 48 hours before grouting the joints.

### STEP 6 INSTALLING 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.G). 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 tile flooring in particular should be joint to the flanking strip, ensuring the system elastic functioning a tile 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. H). If the joint were rigid, it would prevent the floor from floating and would de-grout.





### GLUE

When laying ceramic or stone floors, it is advisable to use cement adhesives of class C2E or higher, depending on the specific needs of the site, as per EN12004.

When laying wooden floors, we recommend the use of two-component epoxy-polyurethane glues.

### MOVEMENT JOINTS

Existing fractioning joints in the substrate may be avoided when laying IsolTile BV, but structural joints and expansion joints in the flooring must be respected for minimum units of surface area as per current regulations.

### JOINTS

Before grouting the joints of ceramic floors, make sure that the substrate and the adhesive are completely dry. It is recommended to grout the joints using a specific product according to the type of flooring and the intended use of the room. Class CG2 sealants are suitable for use in residential environments.

### FASCIA PERIMETRALE TECNICA DOPPIO SPESSORE AND FASCIA PERIMETRALE ISOLTILE

When IsolTile BV is installed under low thickness screeds  $\leq 3$  cm (with or without underfloor heating), if there is not already a flanking strip of the radiant system, it will be necessary to desolidarize the screed from the walls along the entire perimeter using Isolmant Fascia Perimetrale Tecnica Doppio Spessore (to be purchased separately, not included in the package). The IsolTile BV package includes the flanking strip Fascia Perimetrale Isoltile which is used in under flooring applications to separate the ceramic flooring from the walls.



## 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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