



ISOLMANT ISOLTILE BV

UNDER SCREED AND UNDER FLOORING INSULATION

Technological and innovative product specifically designed for underscreed sound insulation in structures with finishing screed ≤ 3 cm (average height) and under floor - version with integrated vapour barrier.

WHAT IS ISOLTILE BV

Resilient elastodynamic acoustic layer with low thickness, desolidarising and reinforcing, designed for application under screeds and flooring (tiles, stone, wooden flooring), when the product is required to act as a vapour barrier. To be installed with the screen printed side facing up.

SPECIFIC APPLICATIONS

1. UNDERSCREED APPLICATION

1.1 Application under low thickness screeds ≤ 3 cm (with or without underfloor heating) 2.

2. UNDER FLOORING APPLICATION

1.1 Under flooring application (tiles, stone, wooden flooring) on screed (with or without hot water cold water underfloor heating).

2.2 Under flooring application (tiles, stone, wooden flooring) directly on low thickness/low inertia heating system.



SUSTAINABLE



HEALTHY



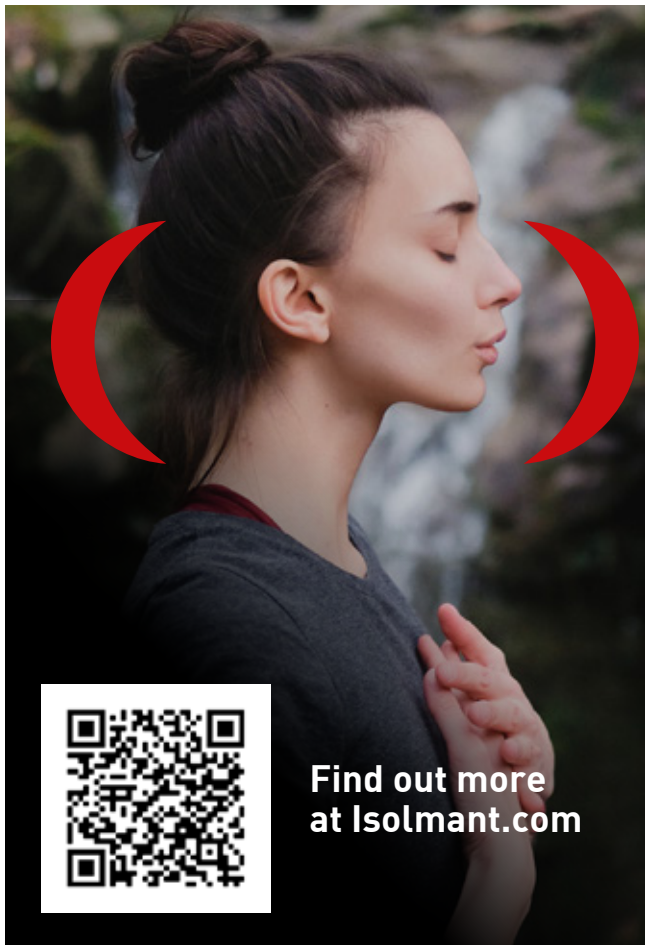
All our products with the "Guaranteed Green Planet" logo are compliant with the sustainability criteria of the most important environmental protocols and certified according to the major national and international standards.



GREEN FEATURES OF ISOLMANT ISOLTILE BV


- **Volatile Organic Compounds free (VOC A+).**
- **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.

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

- This product ensures a significant increase in acoustic insulation against impact noise, in case of renovation and new construction.
- Vapour barrier.
- It can be used in all environments, in both residential and tertiary context.
- Low thickness, does not require modifications to existing levels.
- Low thermal resistance (compatible with underfloor heating systems, even when laid under the floor).
- Allows glue installation of finishes directly on radiant floors with low thickness/low inertia.

ADVANTAGES FOR INSTALLATION

- Easy to install.
- Product supplied with accessories for correct installation.
- This product does not require any special glues to install.
- It allows the expansion joint to be left off the fractionation joint.
- This products avoid large tiles cracking.

ISOLMANT ISOLTILE BV > TECHNICAL SPECIFICATIONS

To be installed with the screen printed side facing up.

NOMINAL THICKNESS:	2 mm
IMPACT SOUND INSULATION IN UNDER SCREED INSTALLATION:	$\Delta L_w = 17 \text{ dB}^{(1)}$
IMPACT SOUND INSULATION IN UNDERFLOORING APPLICATION:	$\Delta L_w = 16 \text{ dB}^{(2)}$
THERMAL CONDUCTIVITY	$\lambda = 0.037 \text{ W/mK}$
THERMAL RESISTANCE	$R_t = 0.054 \text{ m}^2\text{K/W}$
EQUIVALENT AIR THICKNESS ISOLTILE CLASSIC:	$S_d > 40 \text{ m}$
COMPRESSIVE STRENGTH	127 kPa (0.5 mm deformation)
COMPRESSIVE STRENGTH (%):	<div>deformation 10% at 96 kPa</div> <div>deformation 25% at 127 kPa</div> <div>deformation 40% at 229 kPa</div> <div>deformation 50% at 313 kPa</div>
COMPRESSIVE CREEP:	> 50 kPa (0.5 mm of deformation)
DYNAMIC LOAD (DL):	200000 cycles (at 75 kPa)
CONFORMABILITY (PC):	> 1.5 mm
REACTION TO FIRE CLASS:	$C_{fl-s1}^{(3)}$
EMISSION OF VOLATILE ORGANIC COMPOUNDS:	VOC A+ ⁽⁴⁾
CE MARKING:	<p>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.</p>
SIZE:	Rolls of: 1.00 m x 20 m (h x L) = 20 m ²
PACKAGE:	Individual rolls including installation kit: Fascia per giunte: h 7.5 cm x L 20 m Fascia perimetrale: h 3 cm x L 20 m

(1) Isolmant laboratory test report No. 1102/2019

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

(3) Istituto Giordano test report no. 362272

(4) Istituto Giordano test report no. 379083

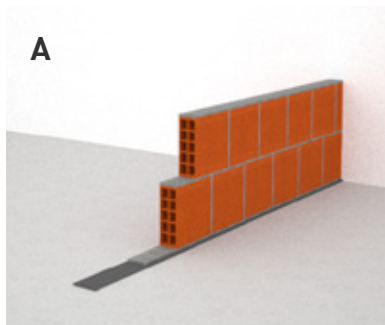
ITEM SPECIFICATIONS

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/m³, thermal conductivity 0.037 W/mK, equivalent air thickness $S_d > 40$. To be installed with the screen-printed side facing upwards.

**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

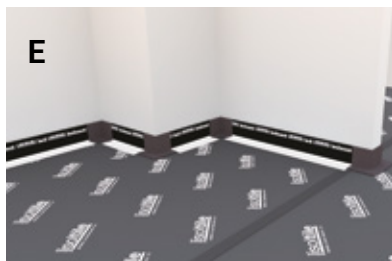
PREPARING THE SCREED



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

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 5

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).



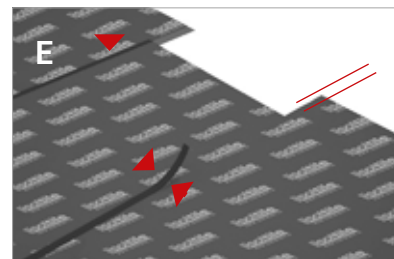
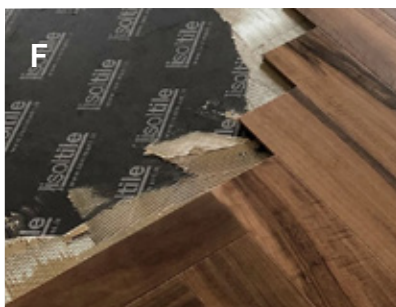
LAYING THE FIRST LAYER OF GLUE

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 ≤ 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.



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

Isolmant is a TECNASFALTI srl's registered trademark - © TECNASFALTI - All rights reserved - Copying, even partially, is forbidden - In force since July 2022 - This document supersedes and replaces all previous versions.