ISOLMANT ISOLTILE CLASSIC

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 UNDERFLOORING

WHAT IS ISOLTILE CLASSIC

Resilient elastodynamic acoustic layer with low thickness, desolidarising and reinforcing, designed for underscreed and underflooring applications (tile, stone, wooden flooring). Thickness 2 mm.

SPECIFIC APPLICATIONS

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

2. UNDER FLOORING APPLICATIONS
2.1 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.

ADVANTAGES

- This product ensures a significant increase in acoustic insulation against impact noise, in case of renovation and new construction.
- It can be used in all environments, in both residential and tertiary contexts.
- 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.
- Does not require the use of special glues.
- It allows the expansion joint to be left off the fractioning joint.
- Protects large ceramic tiles from cracking.

ISOLMANT Green Planet

- Volatile Organic Compounds free(VOC A+).
- Manufactured with low environmental impact.
- Contributes to achieve credits for the environmental certification of a building according to LEED or ITACA standards.
- This product can be disposed of according to EWC 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.

CAM MINIMUM ENVIRONMENTAL CRITERIA — SUSTAINABLE

VOC FREE — HEALTHY

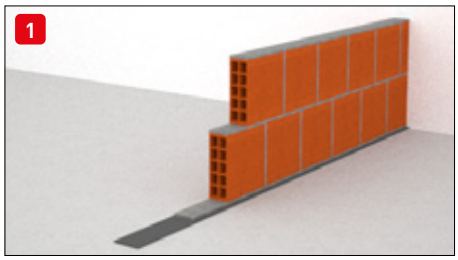
NOMINAL THICKNESS:	2 mm
IMPACT SOUND INSULATION IN UNDER SCREED INSTALLATION:	ΔL_w = 17 dB [1]
IMPACT SOUND INSULATION IN UNDERFLOORING APPLICATION:	ΔL_w = 16 dB [2]
THERMAL CONDUCTIVITY	λ= 0.037 W/mK
THERMAL RESISTANCE	R_t = 0.054 m²K/W
EQUIVALENT AIR THICKNESS ISOLTILE CLASSIC:	S_d < 40 m
COMPRESSIVE STRENGTH	127 kPa (0.5 mm deformation)
COMPRESSIVE STRENGTH (%):	deformation10% 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)
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:	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:	Rolls of: 1.00 m x 20 m (h x L) = 20 m²
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

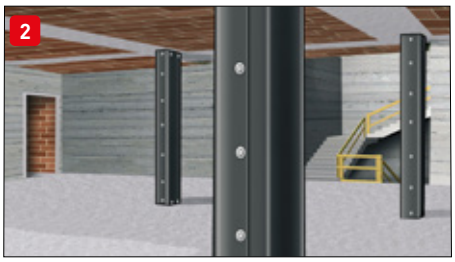
(1) Isolmant laboratory test report No. 1102/2019
(2) Test report Ri.Cert. no.11-3445-0 09
(3) Istituto Giordano test report no. 362272
(4) Istituto Giordano test report no. 379083

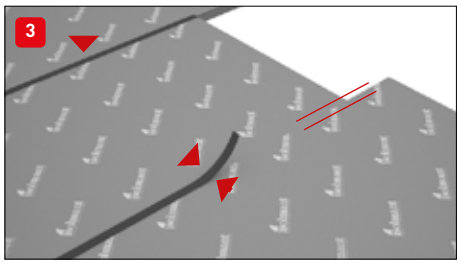
ITEM SPECIFICATIONS

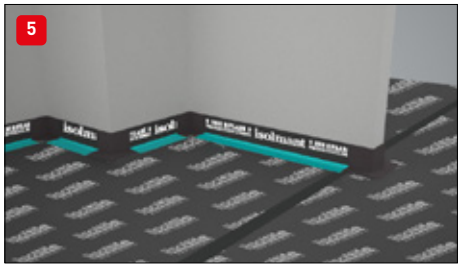
Resilient elastodynamic acoustic layer with low thickness, desolidarising and reinforcing, designed for underflooring and underscreed applications on tile, stone, wooden flooring. Isolmant is made of expanded polypropylene material which is coated on the upper and lower side with special Isolmant screen-printed, black Fibtec XP1 (black screen-printed and calendered polypropylene fabric for technical application) (Isolmant IsolTile Classic type). Nominal thickness 2 mm, density 77 kg/m³, thermal conductivity 0.037 W/mK.

APPLICATION UNDER LOW THICKNESS SCREED ≤ 3 cm (with or without underfloor heating) IF THE PRODUCT IS NOT REQUIRED TO BE VAPOUR BARRIER.









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 band is available in different thicknesses and densities depending on the weight of the partitions (Fig.1)

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. 2).

3

Preparing the screed. He surface where IsolTile Classic will be laid should be load-bearing, flat, adequately even, clean and free from debris and oil. Nevertheless, the installer will assess the suitability of the surface when laying glue and sheets.

4

Laying the first layer of glue. IsolTile Classic 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 Classic and between IsolTile Classic 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.

5

Laying the sheets. Roll out the IsolTile Classic sheet on the layer of glue already spread taking into consideration how long it has been open. Remove any air bubbles under the IsolTile Classic 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 Classic 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.3-4).

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.5) 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. 6). 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. 7) 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. 8) 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.

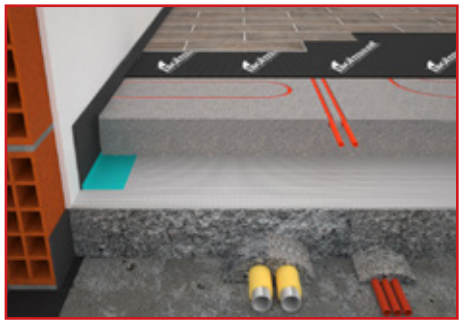
7

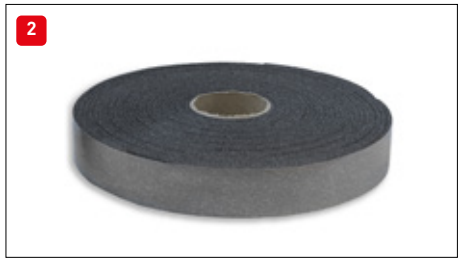
Screed construction. The finishing screed must guarantee adequate mechanical resistance according to the actual laying and loading conditions. Appropriate safety measures must be taken, such as assessing the adequate consistency of the mix, the curing time, the possible need to use collaborating elements (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).

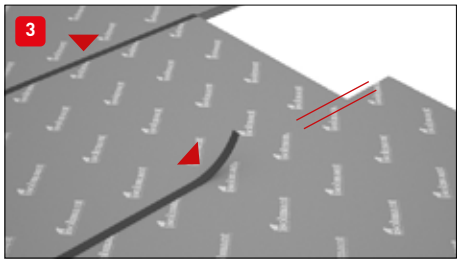
8

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.4). 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.

APPLICATION UNDER FLOOR (tile, stone, wooden flooring) ON screed (with or without underfloor heating) IF THE PRODUCT IS NOT REQUIRED TO BE A vapour BARRIER.







1

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

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. 1-2) (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).

3

Laying the first layer of glue. IsolTile Classic 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 Classic and between IsolTile Classic 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.

4

Installing the sheets. Roll out the IsolTile Classic sheet on the layer of glue already spread taking into consideration how long it has been open. Remove any air bubbles under the IsolTile Classic 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 Classic 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.3).

5

Installing the flooring. 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 Classic 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. 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 Classic 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.

6

Installing the 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.4). 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. 5). 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 Classic, 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 Classic 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 Classic 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.

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