ISOLMANT SPECIAL

UNDERSCREED INSULATION

ESSENTIAL PRODUCT SPECIFIC FOR UNDERSCREED IMPACT SOUND IN DOUBLE LAYER SOLUTIONS WITH FINISHING VALUE RANGING BETWEEN 4 AND 7 CM.

WHAT IS ISOLMANT SPECIAL?

Resilient layer in second-generation Isolmant polyethylene with embossed and screen-printed upper side, featured by a better and calibrated quality of the polyethylene cellulation. Thanks to its intrinsic quality and physical properties, this product ensures long-term performance. It provides excellent impact sound and airborne insulation for horizontal partitions. 3 mm, 5 mm, 10 mm and 15 mm thickness available.

SPECIFIC APPLICATIONS

Isolmant Special is specific for floating screeds as provided by UNI 11516:2013 standards with any type of slab. This product is recommended for applications under a finishing screed (double layer solution), it requires a finishing screed at least 4 cm thick (for 3- 5 mm Isolmant Special) and at least 7 cm thick (for 10 -15 mm Special). In case of disjointing a floating screed from perimeter walls, it is recommended not to turn Isolmant Special upside down but to use Isolmant Fascia Perimetrale. Install Isolmant Special with the embossed and screenprinted side facing upwards.

ADVANTAGES

- Excellent acoustic impact sound and airborne insulation.
- Suitable for use in both renovation and new construction.
- For special building needs where increased strength is required, it is available on request with a special anti-tearing protective fabric.
- Low thermal conductivity.
- Unalterable over time.
- Unlimited durability.
- Contact with water does not affect performance or characteristics.
- Impervious to mould or insects.

ADVANTAGES FOR INSTALLATION

- Easy to lay product.
- Product with overlaps (10 mm and 15 mm only).
- Easy to trim: can be easily cut with a utility knife or box cutter.

ISOLMANT Green Planet

- Volatile Organic Compounds free(VOC A+).
- German Eco-label certification Blue Angel.
- 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.

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ISOLMANT SPECIAL TECHNICAL SPECIFICATIONS

> To be installed with the Isolmant embossed and screen-printed side facing upwards.

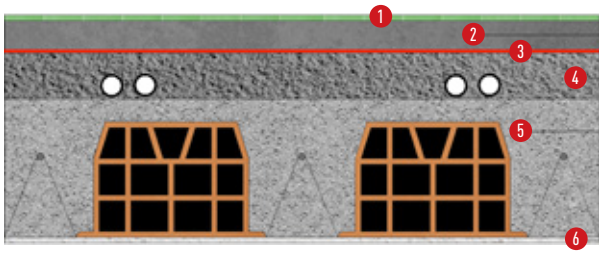
NOMINAL THICKNESS:	3 mm	5 mm	10 mm	15 mm
DYNAMIC STIFFNESS	s'= 80 MN/m³ (1)	s'= 60 MN/m³ (2)	s'= 32 MN/m³ (3)	
IMPACT SOUND INSULATION:	ΔL_w = 19 dB (4)	ΔL_w = 25.5 dB (5)	ΔLw = 28 dB (6)	
"IN SITU" IMPACT SOUND INSULATION:		$L'_{n,w}$ = 59 dB (7)		
AIRBORNE NOISE INSULATION:		R_w = 55 dB (8)		
COMPRESSION CLASS		CP2 (9)		
CONDUCTIVITY:		λ= 0.035 W/mK		
THERMAL RESISTANCE	R_t = 0,086m²K/W	R_t = 0.142 m²K/W	R_t = 0.284 m²K/W	R_t = 0.426 m²K/W
SPECIFIC HEAT CAPACITY		c = 2100 J/kgK		
VAPOUR RESISTANCE		μ = 3600		
EMISSION OF VOLATILE ORGANIC COMPOUNDS:		VOC A+ (10)		
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: 1.50 m x 50 m (h x L) = 75 m² After overlapping the sheets they should be sealed by means of Isolmant Fascia Nastro o Isolmant Nastro Telato.			Rolls of: 1.50 m x 30 m (h x L) = 45 m² After overlapping the sheets they should be sealed by means of Isolmant Fascia Nastro or Isolmant Nastro Telato.
PACKAGE:		Single rolls		

(1) ICITE Test Report No.3385/RP/01
(2) ICITE Test Report No. 3209/ RP/00
(3) ICITE Test Report No. 3343/ RP/001
(4) Value calculated according to UNI EN 12354-2 and UNI TR 11175 standards on the following stratigraphy: 20+4 concrete slab with lightened concrete substrate and thick concrete floor finishing screed. 5 cm
(5) CSI Test Report No.015DUE/A/95
(6) CSI Test Report No. 079/ A/92
(7) Value measured on site - see structure page 3 of this technical data sheet
(8) Value calculated according to UNI EN 12354-1 and UNI TR 11175 standards on the following stratigraphy: 20+4 concrete slab with lightened concrete substrate and thick concrete floor finishing screed. 5 cm
(9) Test Report No. 1009_1409
(10) Istituto Giordano test report no. 376851

ITEM SPECIFICATIONS

Resilient layer is made , of second-generation reticulated expanded closed-cell polyethylene. This product ensures an even performance and high compressive strength over the time (Isolmant Special type). To be installed with the embossed and screen-printed side facing upwards. Product with overlaps (10 and 15 mm thk). Density 30 kg/m³. Nominal thickness: 3 - 5 - 10 -15 mm. Dynamic stiffness 80 - 60 - 32 MN/m³ for 3 - 5 - 10 mm versions respectively.

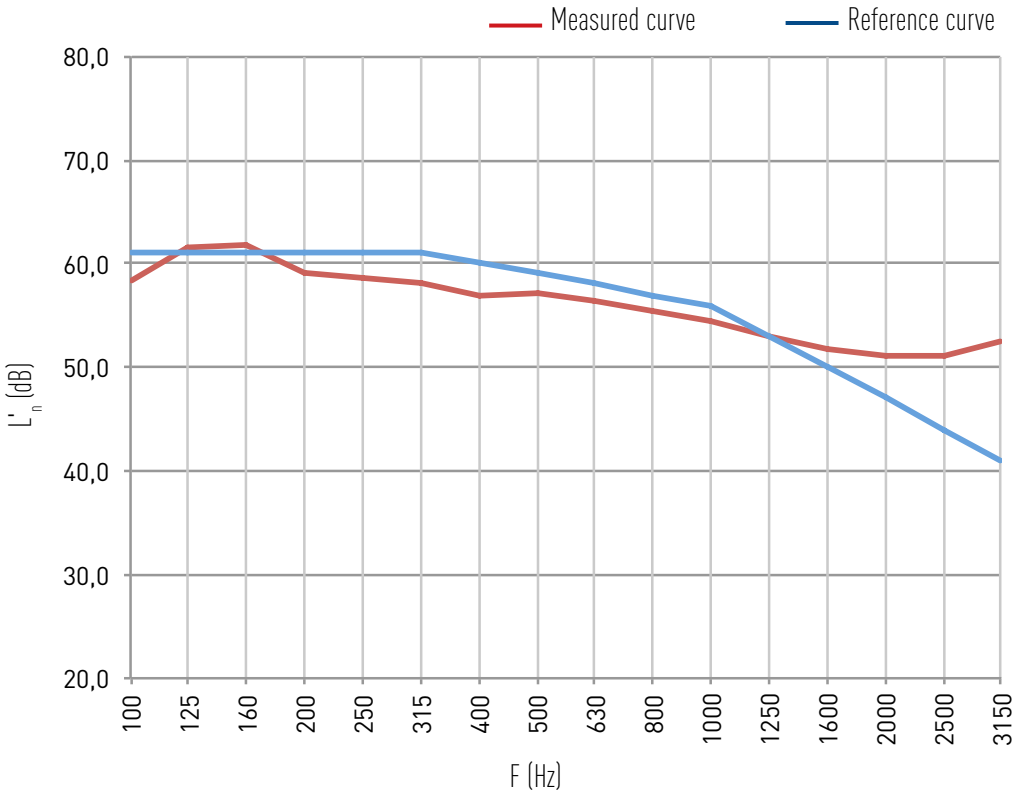
RESIDENTIAL UNITS IN MODENA (MO)



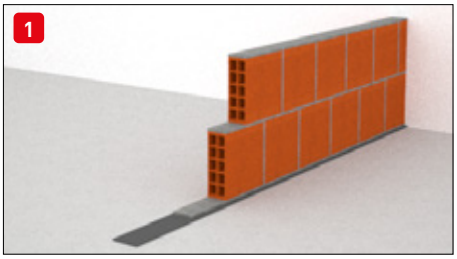
$L'_{n,w}(C_l) = 59\ (-5)$ dB

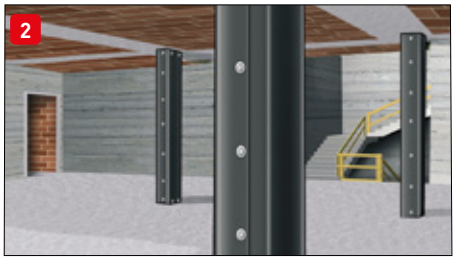
No.	Layer	Material	Thickness (m)	Surface mass (kg/m²)
1	Flooring	Tile	0.01	
2	Supporting screed	Sand and cement	0.05	90
3	Resilient material	**Isolmant SPECIAL**	0.005	
4	Levelling Screed	Lightweight concrete	0.08	20
5	Structural slab	Concrete	0.24	290
6	Plaster	Premix	0.01	14
		Total thickness	0.395	

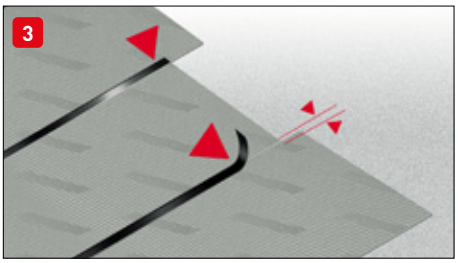
Frequency (Hz)	L'_n (dB)
100	58.3
125	61.5
160	61.7
200	59
250	58.7
315	58
400	56.9
500	57.2
630	56.3
800	55.5
1000	54.5
1250	53.1
1600	51.8
2000	51.1
2500	51.1
3150	52.6

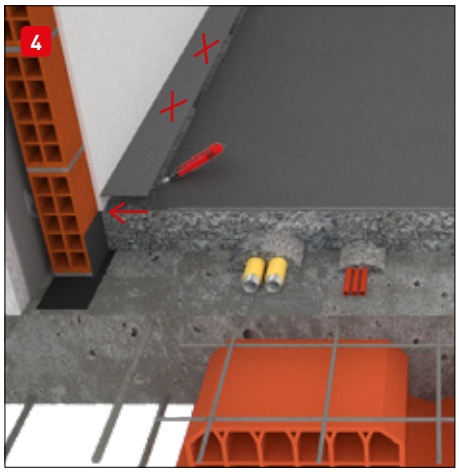


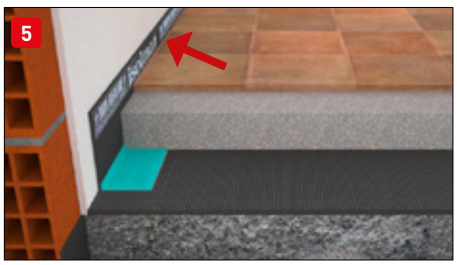
FLOORING SYSTEM By isolmant











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.1)

2

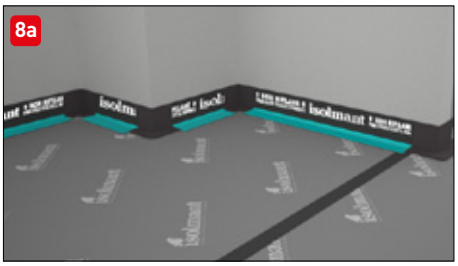
Disjointing of reinforced concrete structures. In the presence of stairwells, elevator compartments and pillars (even if contained within the vertical partitions) that rigidly connect all the structural elements from the foundations to the last floor, it is necessary to cover them with elastic material (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 (Fig. 2).

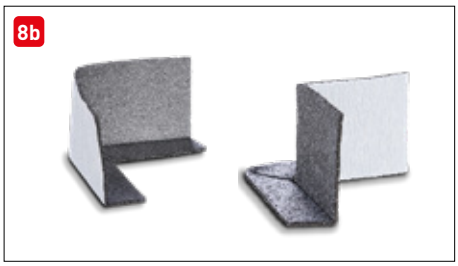
3

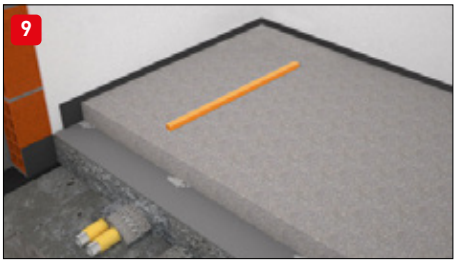
Installing Isolmant Special resilient layer. Isolmant Special does not have an anti-tearing layer and is therefore not recommended for single-layer bases (in this case, Isolmant BiPlus is recommended). Before installing the underlay, a levelling screed must be laid using suitable materials and recipes to ensure adequate mechanical support and a plain and uneven surface. Then, Isolmant Special sheets (Isolmant Special 3 mm e 5 mm) can be installed after having carefully joined and sealed them with Isolmant Nastro Telato or Isolmant Fascia Nastro (Fig. 3). If installing 10 mm and 15 mm Isolmant Special, the sheets should be joined using the special overlapping fabric and sealed with Isolmant Nastro Telato or Isolmant Fascia Nastro (Fig. 3). It is also necessary to be careful to start flush with the wall with the polyethylene (for 10 mm and 15 mm Isolmant Special), avoiding leaving visible strips of fibre near the walls: the fibre, in fact, absorbs the cement and stiffens, generating a dangerous and continuous acoustic bridge. It is therefore necessary to trim only the fibre flush with the wall in order to guarantee the presence of both layers of product over the entire surface of the floor (Fig. 4).

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 strip is about 2/3 cm higher than the flooring level. This excess must be trimmed after laying the floor (Fig. 5). 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. 8a - 8b). It is also necessary to avoid a gap between the strip and the walls at the corners (Fig. 6) 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. 7) causes a reduction in the thickness







4

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.

5

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). With reference to the thickness of the finishing screed, it is advisable to create a minimum thickness of no less than 4 cm in the case of installing 3- 5 mm Isolmant Special and no less than 7 cm with 10 - 15 mm Isolmant Special. If the thickness is less than 5 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. 9). When pouring the screed, special care must be taken not to tear or puncture the elastic material.

6

Installing flooring and skirting boards. It is essential to inform all site operators that the excess of the strip must be trimmed only after the flooring has been laid and grouted (Fig. 10) 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. 11). If the joint were rigid, it would prevent the floor from floating and would de-grout.

WARNINGS:

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**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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ISOLMANT ISOLDRUM N (SPECIAL N)

UNDER FLOORING INSULATION

ULTRA-THIN (ONLY 1 MM), HIGH-DENSITY PRODUCT FOR WOODEN FLOORING, LAMINATE AND LVT FLOATING INSTALLATION

WHAT IS ISOLMANT ISOLDRUM N (SPECIAL N)?

Resilient layer made of second-generation Isolmant Special polyethylene with embossed and screen-printed upper side. This product is featured by a better and calibrated quality of the polyethylene cellulation. Thanks to its intrinsic quality and physical properties, this product ensures long-term performance. An "entry level" product in the Isolmant range IsolDrum, it improves insulation performance against impact noise and RWS reverberation noise when used for floating installation of wooden and laminate flooring.

SPECIFIC APPLICATIONS

Isolmant IsolDrum N (Special N) is specifically designed for floating installation of laminate flooring, wooden flooring and other types of hard flooring of suitable thickness. A high quality system to reduce impact and reflected sound. Isolmant IsolDrum N (Special N) has been developed to protect the interlocking devices of these floors even when subjected to high loads thanks to its high compressive strength (CS). Isolmant IsolDrum N (Special N) is specifically recommended in case of underfloor heating systems. Check: Rt (Flooring + underlay) ≤ 0,15 m^2K/W.

ADVANTAGES

- Excellent insulation against impact noise and reverberation noise (RWS).
- Minimum thickness.
- Low thermal resistance.
- High compressive strength (CS).

SPECIFIC APPLICATIONS

- Easy, dust-free cutting using a utility knife or box cutter.
- To be laid with the screen-printed side up.

ISOLMANT Green Planet

- Volatile Organic Compounds free (VOC A+).
- German Eco-label certification Blue Angel.
- Free of plasticisers, asbestos, formaldehyde, halogens and heavy metals.
- It is solvent-free and contains no other ozone-depleting substances.
- This product can be disposed of according to EWC n. 170604.

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ISOLMANT ISOLDRUM N (SPECIAL N) TECHNICAL SPECIFICATIONS

To be positioned with the screen printed fabric facing upwards.

NOMINAL THICKNESS:	1 mm
IMPACT SOUND INSULATION (RWS):	23 sone
REFLECTED WALKING SOUND INSULATION:	ΔL_w = 19 dB [1]
COMPRESSIVE STRENGTH (CS):	110 kPa (0.5 mm deformation)
COMPRESSIVE CREEP (CC):	30 kPa (max. load def. < 0.5 mm in 10 years)
DYNAMIC LOAD (DL):	> 10000 cycles (at 25 kPa)
IMPACT RESISTANCE - LARGE BALL TEST:	650 mm (under 7 mm of DPL laminate flooring)
THERMAL RESISTANCE:	R_t = 0.032 m^2K/W
WATER VAPOUR RESISTANCE - S_D (WVTV):	S_d = < 40 m
EMISSION OF VOLATILE ORGANIC COMPOUNDS:	VOC A+ [2]
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: 1.0 m x 20 m equal to 20 m^2
PACKAGE:	Paper boxes of 35 rolls m^2)

(1) MFPA Test Report No. P 4.2/ 08- 208-7

(2) Istituto Giordano test report no. 376851

ITEM SPECIFICATIONS

Resilient layer made of second-generation reticulated expanded closed-cell polyethylene. This product ensures an even performance and high compressive strength over the time (Isolmant IsolDrum N type - Special N). To be installed with the embossed and screen-printed side in visible position. Density 67 kg/m^3. Nominal thickness 1 mm.

1

Preparing the screed. The surface where Isolmant IsolDrum N (Special N) will be laid should be load-bearing, flat, adequately even, clean and free from debris and oil. However, it will be the responsibility of the installer to assess the suitability of the surface for laying the sheets and the subsequent floating installation of laminates and wooden floorings by carrying out some preliminary checks:

- external doors and windows must be installed with the relevant glass panes and the rooms to be floored must be protected from severe weather conditions;
- other types of flooring already in place;
- masonry, installation of cladding and sanitary fixtures must have been completed;
- the temperature of the rooms must be ≥ 15 °C;
- the ambient humidity must be between 45% and 60%;
- the conditions of the substrate must have been checked and it must be compliant and suitable for the laying of the flooring;
- in the case of a heating screed, the pre-heating cycle must have been carried out.

2

Laying the sheets. Lay the sheets with the screen-printed side facing upwards (visible), side by side and carefully aligned, taking care not to overlap them; cutting the sheets is easy and clean: we recommend using a utility knife or box cutter.

3

Laying of wooden flooring. In particular, the wooden flooring 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 installation environment must guarantee environmental conditions within the values of max. RH 45%-60%, T°C 18°C - 25°C, the necessary conditions to keep a proper wood/environment balanceas as provided by UNI EN 13489:18 (7%+2%). In addition, the screed on which the flooring 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.

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**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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ISOLMANT SPECIAL 2mm SERIE R (GREEN GENERATION)

UNDER FLOORING INSULATION

ISOLMANT SPECIAL 2MM R SERIES FROM RENEWABLE SOURCES, FOR SOUND INSULATION UNDER FLOATING FLOORING

WHAT IS ISOLMANT SPECIAL 2MM SERIE R

Resilient layer made of Isolmant polyethylene R series completely sustainable and from renewable sources, with embossed and screen-printed upper side, featured by a better and calibrated quality of the polyethylene cellulation. The brown wood color brings to mind the type of flooring for which it is designed and the bio-circular materials from which it is made. It guarantees constant performance over time thanks to its intrinsic quality and its high density which allows to improve the insulation performance against footsteps and RWS reverberation noise when used for the floating laying of parquet and laminates. Thickness 2 mm.

SPECIFIC APPLICATIONS

Isolmant Special Serie R is specifically designed for the floating installation of laminate floors, parquet and other types of rigid floors, while complying with environmental sustainability requirements. A high quality system to reduce impact and reflected noise. Isolmant Special Serie R has been developed to protect the interlocking devices of these floors even when subjected to high loads. To be installed with the screen-printed side upwards. The use of Isolmant Special Series R is indicated in applications with underfloor heating system. Check that R_t (floor + underlay) ≤ 0.15 m^2K / W.

ADVANTAGES

- ISCC Plus certificate and made with bio-circular raw materials.
- Excellent sound insulation against impact noise and reverberation noise (RWS).
- Low thermal conductivity.
- High conformability (PC).

ADVANTAGES FOR INSTALLATION

- Easy and dust-free cutting using a utility knife or box cutter.

ISOLMANT Green Planet

- Volaile Organic Compounds free (VOC A+)
- ISCC Plus certificate product made from renewable bio-circular material (using the mass balance approach).
- The renewable source does not compete with the food chain, it is derived from biomass, it is certified and meets the definition of waste or residue according to ISCC.
- Blue Angel certified product (European eco-label certification).
- It contains no plasticisers, asbestos, formaldehyde, halogens or heavy metals.
- It is solvent-free and contains no other ozone-depleting substances.
- This product can be disposed of according to EWC n. 170604.

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SPECIAL 2mm SERIE R (GREEN GENERATION) TECHNICAL SPECIFICATIONS

To be positioned with the screen printed fabric facing upwards.

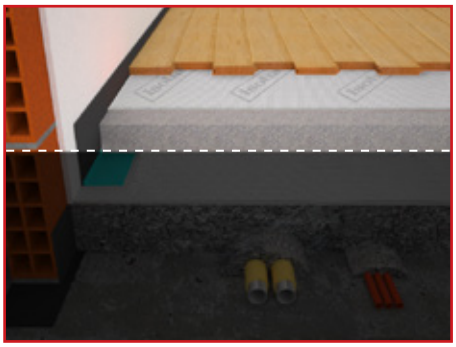
NOMINAL THICKNESS:	2 mm
REFLECTED WALKING SOUND (RWS):	23 sone
IMPACT SOUND INSULATION:	ΔL_w = 20 dB [1]
COMPRESSIVE STRENGTH (CS):	40 kPa (0.5 mm deformation)
COMPRESSIVE CREEP (CC):	2 kPa (max. load def. < 0.5 mm in 10 years)
DYNAMIC LOAD (DL):	25000 cycles (at 25 kPa)
IMPACT RESISTANCE - LARGE BALL TEST:	900 mm (under 7 mm of DPL laminate flooring)
THERMAL RESISTANCE	R_t = 0.045 m^2K/W
WATER VAPOUR RESISTANCE - S_D (WVTV):	S_d = < 40 m
EMISSION OF VOLATILE ORGANIC COMPOUNDS:	VOC A+[2]
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 15 m equal to 15 m^2
PACKAGE:	Paper boxes of 24 rolls (360 m^2)

(1) Polimer institute test report no. A-2021-373-01

(2) Istituto Giordano test report no. 376851

ITEM SPECIFICATIONS

Resilient layer in Isolmant Special polyethylene R Series completely sustainable and from renewable sources. This product ensures an even performance and high compressive strength over the time (such as Isolmant Special Series R). To be positioned with the embossed and screen-printed side visible. Density 50 kg/m^3. Nominal thickness 2 mm.



1

Preparing the screed. The surface where Isolmant Special Serie R will be laid should be load-bearing, flat, adequately even, clean and free from debris and oil. However, it will be the responsibility of the installer to assess the suitability of the surface for laying the sheets and the subsequent floating installation of laminates and parquet by carrying out some preliminary checks:

- External doors and windows must be installed with the relevant glass panes and the rooms to be floored must be protected from the weather.
- Other types of flooring must have already been laid.
- Masonry, installation of cladding and sanitary fixtures must have been completed.
- The temperature of the rooms must be ≥ 15°C .
- The ambient humidity must be between 45% and 60%.
- The conditions of the substrate must have been checked and it must be compliant and suitable for the laying of the flooring.
- In the case of a heating screed, the pre-heating cycle must have been carried out.

2

Laying the sheets. Lay the sheets with the screen-printed side facing upwards (visible), side by side and carefully aligned, taking care not to overlap them; cutting the sheets is easy and clean: we recommend using a utility knife or box cutter.

WARNINGS:

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**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 do not expose to sever weather.

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