DIAFON

Impact Sound Insulation Mat

Soundproofing underlay in non-woven fabric (geotextile) made of polypropylene, protected by a low-density polyethylene (ldpe) synthetic film, for impact noise insulation. Sound-absorbing mat made of non-woven polypropylene geotextile, coated with a low-density polyethylene (LDPE) synthetic film, designed for the acoustic insulation of impact noise. Particularly suitable for use beneath floating floors. The interposition of the underlay between the final plant installations layer and the screed allows the creation of a "mass-spring-mass" system, which decouples the floor structure and interrupts the transmission of vibrations.

ADVANTAGES

- · Easy and quick to install
- Excellent acoustic insulation
- · Sound-absorbing
- Impact soundproofing
- Lightweight
- Recyclable
- Rot-proof
- Hypoallergenic
- Compression-resistant
- Acts as a vapour barrier
- Ageing-resistant and maintenance-free.

YIELD

1 roll: 1.00 x 25.0 m = 25 m².

COLOUR

Light grey.

PACKAGING

Roll dimensions: Length: 25 m High:1 m Thickness: 3,0 mm Weight: 300 g/m²

FIELDS OF APPLICATION

This product is suitable for acoustic insulation and soundproofing against impact noise in floor slab constructions. Ideal for floating floor systems and floating screeds. *Diafon* is suitable



DIASEN SRL UNIPERSONALE - Società Benefit

Zona Industriale Berbentina 5 - 60041 Sassoferrato (AN) | Italia | +39 0732 9718 diasen@diasen.com | www.diasen.com | P.IVA 01553210426 | R.E.A. Ancona n. 150933 Reg. Imp. Ancona 01553210426 | Cap. Soc. €400.000,00 i.v. for both new buildings and refurbishment projects. It is particularly recommended where environmentally friendly, recyclable materials are required, and in heritage restorations. The underlay is also ideal for environments where hypoallergenic and dust-free materials are essential.

STORAGE

The product must be stored in its original, tightly sealed packaging, in well-ventilated areas, protected from sunlight, water, and frost, at temperatures between $+1^{\circ}C$ and $+35^{\circ}C$.

SUBSTRATE PREPARATION

The substrate must be fully cured, dry, and adequately resistant. The surface must be thoroughly clean, sound, and free from loose or crumbling parts. The substrate on which *Diafon* is installed must be level and free of irregularities to avoid the formation of acoustic bridges.

APPLICATION

1/3

- 1. Before laying the soundproofing mat, it is recommended to obtain suitable adhesive tape to secure *Diafon* to the substrate, as the mat does not feature any self-adhesive or double-sided tape.
- 2. Apply the adhesive tape along one side of the *Diafon* mat, ensuring full coverage of the contact area.
- 3. Lay out the *Diafon* sheets over the substrate to be covered, ensuring an

The instructions and recommendations provided herein, while reflecting our best experience and knowledge, are to be considered indicative and must be verified through thorough practical applications. Diasen does not have specific knowledge of the on-site conditions nor of the particular characteristics of the substrate. Therefore, before using the product, the installer must always carry out preliminary tests to verify its full suitability for the intended application. In any case, the user assumes all responsibility arising from the use of the product. In the event of doubts or uncertainty, please contact the company's Technical Department prior to commencing the works. Such support is intended solely as an aid to the installer, who must in any case ensure adequate skills and experience both in the application of the product and in identifying the most suitable solutions. Always refer to the latest updated version of the technical data sheet, available at <u>www.diasen.com</u>, which cancels and replaces all previous editions.

DIAFON Impact Sound Insulation Mat

overlap of 10 cm at the edges. This will create a continuous sound-insulating layer. The entire surface must be fully covered.

- 4. The overlapping of the sheets should consider the screed pouring direction to prevent the mats from shifting or opening.
- 5. The *Diafon* acoustic mat can be incorporated within the horizontal stratigraphy depending on the specific requirements and type of intervention:
 - Floating floor: position Diafon between the plant services screed and the bedding screed for the flooring finish;
 - Floating slab: position Diafon directly above the structural slab. Any service installations must be placed above the mat. Heating system pipes must be insulated to prevent heat damage to the mat.
- 6. The *Diafon* mat must be turned up along the perimeter walls to prevent the formation of acoustic bridges between the flooring and other building elements. The upturn height must exceed the level of the finished floor. The upturn angle should be 90°, with no rounded corners, to avoid voids between *Diafon* and the concrete slab.
- 7. Apply *Diathonite Screed* thermal-acoustic screed to a minimum thickness of 5 cm (refer to the technical data sheet).
- It is always recommended to embed a galvanised welded wire mesh within the screed. Minimum mesh specifications: wire diameter Ø 2 mm, mesh size 50 × 50 mm.
- **9.** Install the flooring finish using ceramic tiles, marble, or parquet.
- **10.** Trim *Diafon* just above the finished flooring surface.

11. Install the skirting board, ensuring it is not rigidly bonded to the floor surface. Maintain a gap of approximately 2 mm between the skirting and the flooring. If necessary, this joint can be sealed with an elastic material to avoid acoustic bridging.

RECOMMENDATIONS

- There must be no rigid contact points between the *Diafon* mat and the underlying slab and/or adjacent walls.
- In the case of an underfloor heating system (radiant floor panels), the mat must be placed **beneath** the service installation layer, which must be embedded in a suitable heat-diffusing screed with a **minimum thickness of 35 mm** in the case of self-levelling products.
- Do not apply the product at ambient or substrate temperatures below +1°C or above +35°C.
- Do not apply *Diafon* when the relative humidity exceeds 70%.
- Its use is clean, with no dust generation.
- The product is easily reusable and fully recyclable.

CLEANING

Tools used to cut the product do not require cleaning.

HEALTH AND SAFETY

Wear appropriate personal protective equipment during handling and refer to the product's safety data sheet for detailed health and safety instructions.



DIASEN SRL UNIPERSONALE - Società Benefit

Zona Industriale Berbentina 5 - 60041 Sassoferrato (AN) | Italia | +39 0732 9718 diasen@diasen.com | www.diasen.com | P.IVA 01553210426 | R.E.A. Ancona n. 150933 Reg. Imp. Ancona 01553210426 | Cap. Soc. €400.000,00 i.v. The instructions and recommendations provided herein, while reflecting our best experience and knowledge, are to be considered indicative and must be verified through thorough practical applications. Diasen does not have specific knowledge of the on-site conditions nor of the particular characteristics of the substrate. Therefore, before using the product, the installer must always carry out preliminary tests to verify its full suitability for the intended application. In any case, the user assumes all responsibility arising from the use of the product. In the event of doubts or uncertainty, please contact the company's Technical Department prior to commencing the works. Such support is intended solely as an aid to the installer, who must in any case ensure adequate skills and experience both in the application of the product and in identifying the most suitable solutions. Haways refer to the latest updated version of the technical data sheet, available at <u>www.diasen.com</u>, which cancels and replaces all previous editions

2/3

DIAFON Impact Sound Insulation Mat

* The data provided, although obtained using standardised testing methods, are indicative and may vary depending on specific site conditions.

Physical / Technical Data *						
Technical Characteristics			Unit			
Yield	1 roll = 25	m²				
Appearance	Roll made of polypro woven fabric, prote density polyethyle synthetic f	-				
Weight	300 g/m ²		g/m²			
Roll Dimensions	Height Length Thickness	1 m 25 m 3 mm	m m mm			
Application Temperature	+1 / +35	°C				
Storage	12	months				
Packaging	1 roll	roll				

Final Performance*		Units	Standard	Results
Thermal conductivity (λ)	0,045	W/mK	UNI EN 12667 ASTM C518	-
Thermal resistance (R)	0,067	m² K/W	UNI 10355 ASTM C518	-
Airborne sound reverberation reduction	60%	-	-	-
Compression behaviour	0,5 mm (at 300 kPa)	-	-	-
Impact sound reduction on floor slab (hollow-core concrete + <i>Diafon</i>)	L'nw = 61,0	dB	DPCM 05.12.1997	-
Impact sound insulation of Diafon	$\Delta L_w = 26$	dB	UNI EN ISO 12354-2 UNI/TR 11175	-
Apparent dynamic stiffness	s' _t = 46,0	MN/m ³	UNI EN 29052 - 1	-





DIASEN SRL UNIPERSONALE - Società Benefit

Zona Industriale Berbentina 5 - 60041 Sassoferrato (AN) | Italia | +39 0732 9718 diasen@diasen.com | www.diasen.com | P.IVA 01553210426 | R.E.A. Ancona n. 150933 Reg. Imp. Ancona 01553210426 | Cap. Soc. €400.000,00 i.v. The instructions and recommendations provided herein, while reflecting our best experience and knowledge, are to be considered indicative and must be verified through thorough practical applications. Diasen does not have specific knowledge of the on-site conditions nor of the particular characteristics of the substrate. Therefore, before using the product, the installer must always carry out preliminary tests to verify its full suitability for the intended application. In any case, the user assumes all responsibility arising from the use of the product. In the event of doubts or uncertainty, please contact the company's Technical Department prior to commencing the works. Such support is intended solely as an aid to the installer, who must in any case ensure adequate skills and experience both in the application of the product and in identifying the most suitable solutions. Always refer to the latest updated version of the technical data sheet, available at <u>www.diasen.com</u>, which cancels and replaces all previous editions

3/3