

# DIAFON

Soundproofing carpet

Soundproof polyester nonwoven mat with a synthetic film for reducing footfalls noise. Especially suitable for floating floorings. Placing between the finishing layer of the systems and the oversite concrete on which the flooring is laid creates a “mass-spring-mass” structure that blocks vibrations by making the floor less rigid.

## ADVANTAGES

- Easy and quick to lay;
- Excellent acoustic insulation;
- Sound proofing;
- Reducing footfalls noise;
- Light-weight;
- Recyclable;
- Root proof;
- Anti-allergenic;
- Compression resistant;
- It also forms a vapor barrier;
- Ageing resistant and it does not need maintenance.

## APPLICATION FIELDS

The product is suitable for the acoustic insulation and soundproofing from footfalls noise of underfloor ceiling; to realize soundproofing floating floorings.

*Diafon* is ideal both for new building and refurbishment. Moreover the mat is ideal wherever eco-friendly and recyclable material are required. The mat is used wherever an anti-allergenic and non dusty product is essential.

## YIELD

1 roll 1.50 x 50.0 m = 75 m<sup>2</sup>.

1 roll 4.92 x 164.04 ft = 807.3 ft<sup>2</sup>

## COLOR

Black.

## PACKAGING

Rolls: width 1.50 m;  
length 50.0 m;  
weight 21.75 kg.  
Thickness 5 mm.

Rolls: width 4.92 ft;  
length 164.04 ft;  
weight 47.95 lb.  
Thickness (ISO 9073 – 2) 0.197 in

## STORAGE

Store the product in its original containers perfectly closed, in a well ventilated area, away from sunlight, water and ice, at temperature between +1°C (33.8 °F) and +35°C (95°F).

## PREPARATION OF SUPPORT

The substrate must be completely hardened, dry and resistant enough. The surface must be thoroughly clean, well consolidated, without debris or detaching parts. The surface over *Diafon* is laid must be well leveled to avoid “acoustic bridges”.

## APPLICATION

1. Lay out *Diafon* sheets of on the surface to be covered with the film facing upwards.
2. Peel the cover off the adhesive tape and stick the sheets together. The sheets must be overlapped of 40/50 mm (1.57/1.96 in) in order to realize a continuous soundproofing layer. The surface must be entirely covered.
3. *Diafon* mats overlapping should take in consideration the way of laying, to avoid mats opening.
4. *Diafon* mat can be laid down in the horizontal surfaces, according to necessities and type of intervention:
  - floating floor: laid down *Diafon* between the screed of the system and the screed of the flooring;
  - slab floating: lay down *Diafon* over the slab. Systems must be laid down over the mat. In case of pipe heating system, it should be well insulated to prevent damages with the heat on the mat itself.
5. *Diafon* mat must be skirted over the wall to avoid the formation of acoustic bridges between the floor and the structure of the building. The height of the skirting must be higher than the finished floor, the skirting angle must 90°. It should not be created curvatures to avoid formation of empty spaces between *Diafon* and the foundation.
6. Apply thermal and acoustic *Diathonite for Screed* (see technical data sheet) with a minimum thickness of 5 cm (0.16 ft).



For application video, product page, safety data sheet and other information.

## Thermal acoustic insulation - Mats

Whereas all indications and recommendations supplied herein are stated to the best of our experience and knowledge, they should nevertheless be considered as indicative only and should be confirmed by exhaustive practical applications. Therefore, before using this product, we recommend in any case to perform preliminary tests with the purpose of verifying the complete suitability for the intended use. In case of uncertainties and doubts contact our technical office. This sheet supersedes any other previously released.

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## Technical Data

Features		Units
<b>Yield</b>	1 roll = 75 (807.3)	m <sup>2</sup> (ft <sup>2</sup> )
Aspect	roll	-
Application thickness (ISO 9073 - 2)	5 (0.197)	mm (in)
Weight (ISO 9073 - 1)	290.0	g/m <sup>2</sup>
Drying time	it does not need to dry	-
Application temperature	+1 /+35 (33.8 / 95)	°C (°F)
Packaging	Roll: width 1,50m (4.92 ft); length 50,0m (164.04 ft); weight 21,75kg (47.95lb). Pallet: 8 rolls: 174kg (383.6 lb); 600m <sup>2</sup> (6458.35ft <sup>2</sup> )	m – kg – m <sup>2</sup> (ft – lb – ft <sup>2</sup> )

Final performances		Units	Regulations	Result
Noise reduction	$\Delta L_w = 26.0$	dB	EN ISO 12354-2	excellent
Noise reduction floor (concrete floor with <i>Diafon</i> )	$L'_{nw} = 61.0$	dB	DPCM 05.12.1997	excellent
Dynamic strength	$s'_t = 46.0$	MN/m <sup>3</sup>	EN 29052 - 1	-
Thermal insulation	$\lambda = 0.035$	W/mK	EN 12667	-

\* The above data, even if carried out according to regulated tests are indicative and they may be change when specific site conditions vary.

- It is suggested to use a electrowelded net into the screed. Minimum dimensions of the net: filament  $\Phi$  2 mm (0.08 in) with a shirt of of 50x50 mm (1.97x1.97 in).
- Lay the ceramic, marble or parquet flooring using a suitable glue.

9. Lay *Diafon* over the surface already tiled or covered

10. Lay the baseboard without weld it, through stucco, to flooring and take it up to the floor at about 2 mm (0.08 in). If it occurs, the joint between the floor and the baseboard may be filled using an elastic material for avoiding acoustic bridges.

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## SUGGESTIONS

- There must not be rigid points of contact between *Diafon* mat and the underlying base and/or walls.
- In case of heating system made by radiative flooring, the mat should be laid under the system, which it should be drowned in a specific screed with a minimum thickness of 35 mm (1.37 in) in case of auto-leveled.
- Its use is dust-free.
- Underfloor heating system must be placed on top of *Diafon* sheet and drawned into a suitable diffusive screed.
- The product is completely re-usable and recyclable.

## CLEANING

The materials used to cut the product do not need to be cleaned.

## SAFETY

For the handling, see product safety data sheet.

## Thermal acoustic insulation - Mats

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