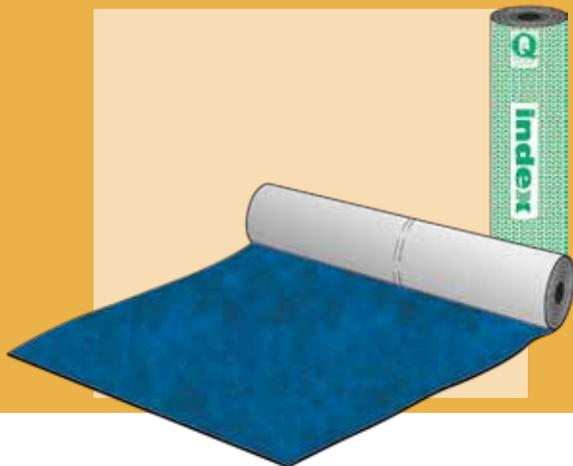


# FONOSTOPTile Monoadhesive

MULTIFUNCTIONAL, UNDERFLOOR, SELF-ADHESIVE FOR ACOUSTIC INSULATION AGAINST FOOT TRAFFIC NOISE FOR INSTALLATION OF CERAMIC AND NATURAL STONE FLOORING WITH ADHESIVE, HAVING WATERPROOFING AND ANTI-CRACKING PROPERTIES FOR INDOORS FLOORS



GRANTS *LEED* CREDITS

CHARACTERISTICS		ENVIRONMENTAL		
				
ACOUSTIC INSULATION	REACTION TO FIRE	ECO GREEN	RECYCLABLE	SAFE WASTE

## 1 PROBLEM

In civil building a requirement arose to guarantee acoustic insulation against foot traffic noise and the waterproofing of internal slabs as well as protecting the flooring from the cracks and damp that could be transmitted from the laying surface to the floor itself. A further requirement, which regards both new buildings and to an even greater extent the refurbishment of old floors, is that of using insulation materials and systems that make it possible to reduce the thicknesses of the under-floor layers. Particularly in the case of rigid marble, ceramic and stone floors, the problem is even more accentuated because a higher degree of insulation against foot traffic noise is normally obtained by laying a floating screed between the layer of acoustic insulation and flooring, making laying times longer and the process more complicated and reducing the living volumes due to the high thickness (at least 4 cm).

The requirement of reducing the setting times of the adhesives used for laying the floors themselves is also increasingly important.

## 2 SOLUTION

**FONOSTOPTile Monoadhesive** is an under-floor membrane of just 2 mm whose lower face is made up of a self-adhesive waterproof layer hence it is laid without adhesives, is waterproof, guarantees good insulation against foot traffic noise, is an effective vapour barrier and has high mechanical resistance, which prevents the transmission of the cracks in the slab to the flooring.

**FONOSTOPTile Monoadhesive** type was created to allow intervention on non-uniform surfaces and also when large format, non-perfectly level, flooring elements are used, hence it is necessary to use the adhesive as a uniforming layer to obtain a smooth floor. To allow adhesion of the floor adhesive to the sheet, the waterproof layer covering the upper face of the membrane is covered with

a polypropylene fibre non-woven fabric and the thickness of the insulation is reduced to a minimum as a floating screed does not need to be laid.

**FONOSTOPTile Monoadhesive** is a single thin sheet in which three layers can be distinguished: two waterproof layers separated by a polyester fibre non-woven fabric onto which they have been calendered. The functionality of the product is based on the high water and vapour proof characteristics of the two layers of mainly elastomeric nature; the one covering the lower face is formulated to extend the adhesiveness also at low temperatures and to allow the cold self-adhesion characteristics to be maintained over time. The thickness of the non-woven fabric fibres that are free to be deformed elastically under the action of the foot traffic generated on the flooring under which it is applied guarantees the foot traffic noise insulation performance. The high basic weight non-woven fabric also has very high tensile strength and perforation resistant properties that prevent the transmission of the cracks in the laying surface to the flooring above. The textile finish of the upper waterproof layer guarantees the hold of the traditional adhesives used to bond the different ceramic, marble and stone floors.

The space taken up by the system is only the thickness of the sheet to which the thickness of the glue and the pre-chosen flooring must be added. The reduction in thickness of the layered arrangement leads to the great advantage of allowing the refurbishment of an old ceramic, marble or stone floor, without having to demolish the existing one but simply by bonding the membrane onto it and then the new floor.

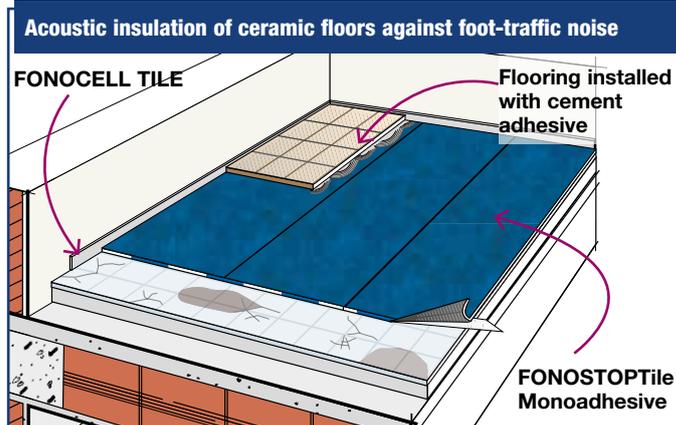
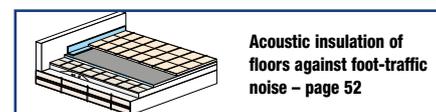
**FONOSTOPTile**

**Monoadhesive** is supplied in rolls with the lower face covered in adhesive protected by a non-stick silicone coated film split into two overlapping halves in order to make it easier to remove when laying.

## APPLICATION FIELDS

**FONOSTOPTile Monoadhesive** is used to insulate and protect the internal slabs of buildings both in new jobs and for refurbishments of old rigid floors even if they are not perfectly uniform and even using elements of the new flooring that are not perfectly level.

(See following)



# FONOSTOPTile Monoadhesive

Mass per unit area		1.35 kg/m <sup>2</sup>
Roll size		1.00 × 15.0 m
Thickness	UNI 9947	approx. 2.0 mm
Impermeability	EN 1928	60 KPa
Aqueous vapour diffusion coefficient		μ 50 000
Thermal conductivity λ		0.170 W/mK
Cold flexibility		-25°C
Traction resistance (L/T)		800/650 N/5 cm
Ultimate failure elongation (L/T)		30/35%
Peel test on steel		
• new		117 N/5cm
• after thermal ageing of 30 d at 70°C		92 N/5cm
Fire reaction class	EN 13501-1	Euroclass C <sub>fl</sub> -s1 (*)
Certification		LAPI

(\*) LAPI certificate n. 1168.ODC0050/11 equivalent to Class 1 pursuant to Ministerial Decree 10-03-2005 latest edition, dated 16-02-2009.

(See previous)

## METHOD OF USE

Unroll **FONOSTOPTile Monoadhesive** onto the laying surface lining it up with one of the walls and cut to measure. Remove the half silicone coated film from the lower face opposite the wall taking care not to move the insulation so that the alignment remains in place.

Exert suitable pressure on the half of the roll where the silicone coated film has been removed so that it sticks to the surface.

Remove the other half of the silicone coated film on the lower face.

Exert suitable pressure on the whole roll so that it sticks fully to the surface. Proceed with the application repeating the laying, cutting, alignment, silicone coated film removal and pressure operations, keeping the sheets perfectly lined up alongside each other.

To improve the adhesion of the product, apply a coat of PRIMER U adhesion promoter to smooth substrates, or PRIMER FIX fixer to porous substrates.

## DETERMINATION OF FOOT TRAFFIC NOISE ON SITE

On an existing clay cement floor slab 20+4 cm, floored with ceramic tiles, we measure the foot traffic noise before and after installation of **FONOSTOPTile Monoadhesive** and the new ceramic flooring, installed with tile adhesive. We used a room on the 1st floor as the source and made the measurement in the room directly below it (ground floor) for a volume of 314 m<sup>3</sup>.

### FONOSTOPTile Monoadhesive

Existing floor  $L_{n,w} = 69$  dB

Renewed floor, insulated with **FONOSTOPTile Monoadhesive**  $L_{n,w} = 57$  dB

Benefit  $\Delta L'_{n,w} = 12$  dB

• THE TECHNICAL SPECIFICATIONS MAY BE VIEWED AND DOWNLOADED ON THE RELEVANT PRODUCT DATA SHEET AT [www.indexspa.it](http://www.indexspa.it) •

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