ANIT

Instructions for correct installation of floating floors

Guidelines

TROCELLEN INSULATION





ANIT - Italian association for thermal and acoustic insulation

www.anit.it

Reprinted the July 30, 2015

The ANIT Guidelines

ANIT, Italian association for thermal and acoustic insulation periodically publishes summaries, guides and manuals on issues related to energy efficiency and sound insulation of buildings.

The topics include legislation, reference technical standards, building technologies, installation instructions and much more. All the topics are detailed in the volumes of the ANIT book series.

MEMBERS ANIT can download for free all the documents, constantly updated, from the website www.anit.it

THE ADVANTAGES OF THE MEMBERS

- Constant updating legislative and regulatory
- The SUITE ANIT, which includes the software PAN, ECHO, LETO and IRIS, for the calculation of thermal and acoustic performance of buildings
- Subscription to the magazine Neo-Eubios
- Choose a volume from series ANIT "The thermal and acoustic insulation"
- Discounts and agreements

... and much more!



ANIT
Associazione
Nazionale
per l'**I**solamento
Termico e acustico

Italian association for thermal and acoustic insulation

Instructions for correct installation of floating floors

INTRODUCTION

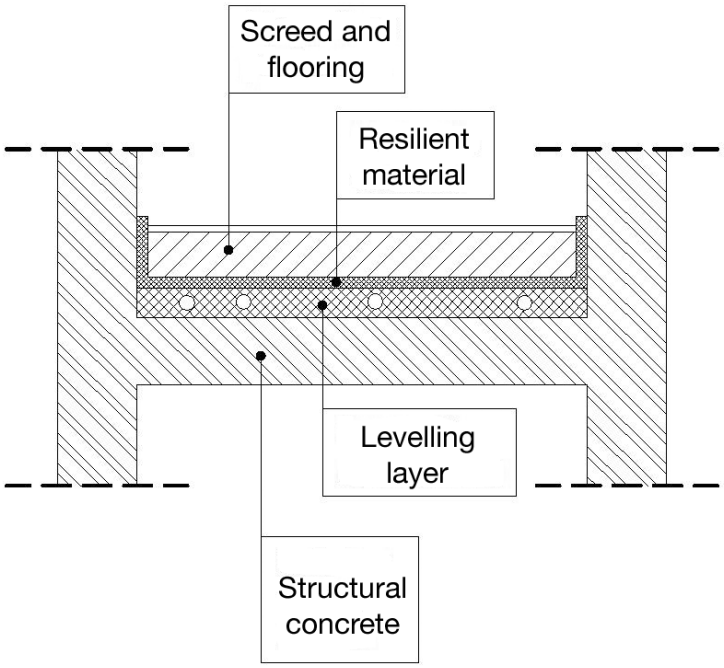
This manual has been written by the ANIT Acoustics Workgroup in order to provide full instructions to guarantee correct installation of floating floors. The English translation has been provided by Trocellen Italia Spa.

When correctly used, this construction method ensures that the impact noise insulation values recommended by Italian law “D.P.C.M. 5-12-1997” are fully met.

FLOATING FLOOR

The installation of a floating floor basically implies preparing a “container” made from a springy, vibration-damping sound-proofing on top of the structural floor slab and self-leveling compound containing the cables and plumbing.

The floating concrete floor lies on top of the insulating material. This “container” must completely separate the concrete and flooring from all adjacent structures. The resilient material must comply with test standards ensuring a constant performance over time, and should not collapse due to the compression stresses caused by the screed layer.



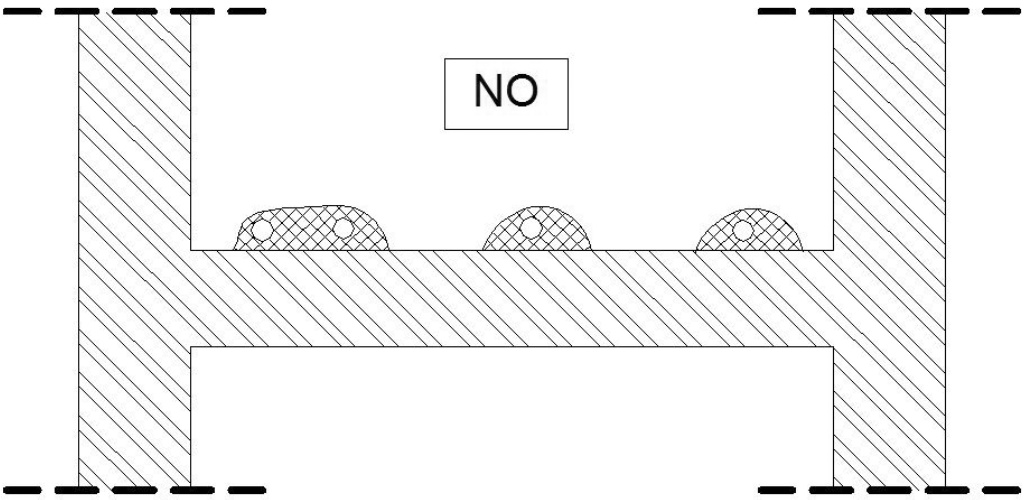
If correctly positioned, the springy sound-proofing acts like a spring to dampen any drum sound vibration caused by people walking on the floor.

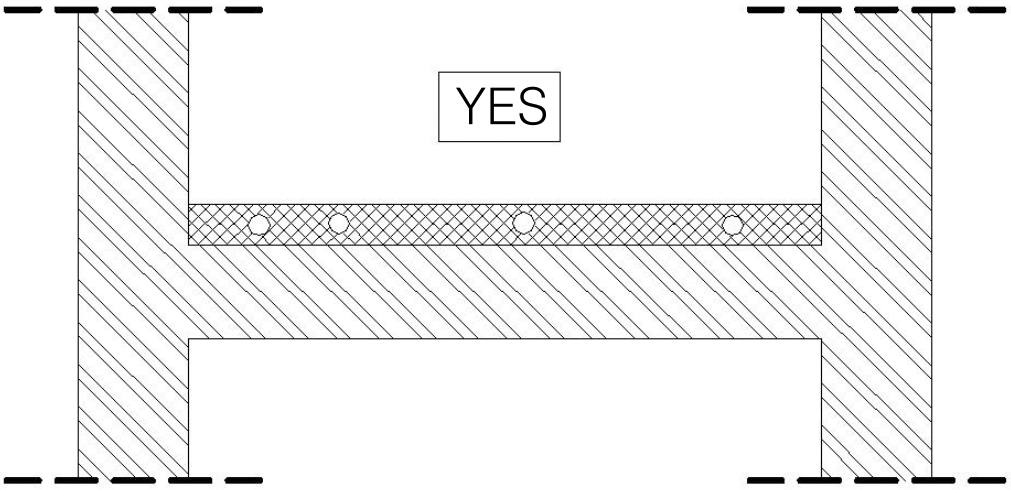
It is therefore essential that the following instructions are observed.

INSTRUCTIONS

Before installing the springy sound-proofing, ensure that the self-leveling compound is flat and completely smooth. Any cable ducts or pipes must be completely covered to get a smooth, flat surface.

The sound-proofing must withstand compression stresses by the screed layer.





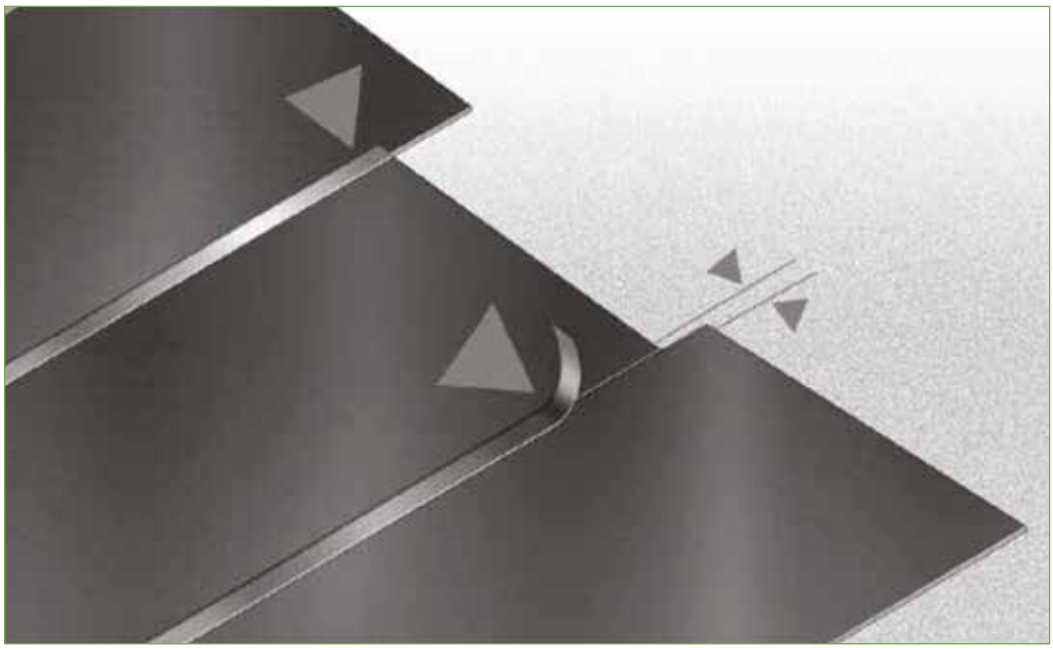
If the cables and pipes are covered with lightweight material, check that this is of the same quality and density across the floor.

Any concentrations in such lightweight material may lead to the formation of cracks or gaps, which could then compromise the acoustic insulation.

Carefully chose the right type of springy sound-proofing to suit the degree of insulation required and the expected weight and load capacity of the floor.

There should be no gaps in the springy sound-proofing once installed.

All sections must either lie flush and be taped together, or overlap and covered by a sheet of long-lasting poly-ethylene to avoid any concrete from seeping through and coming into contact with the self-leveling compound during casting.



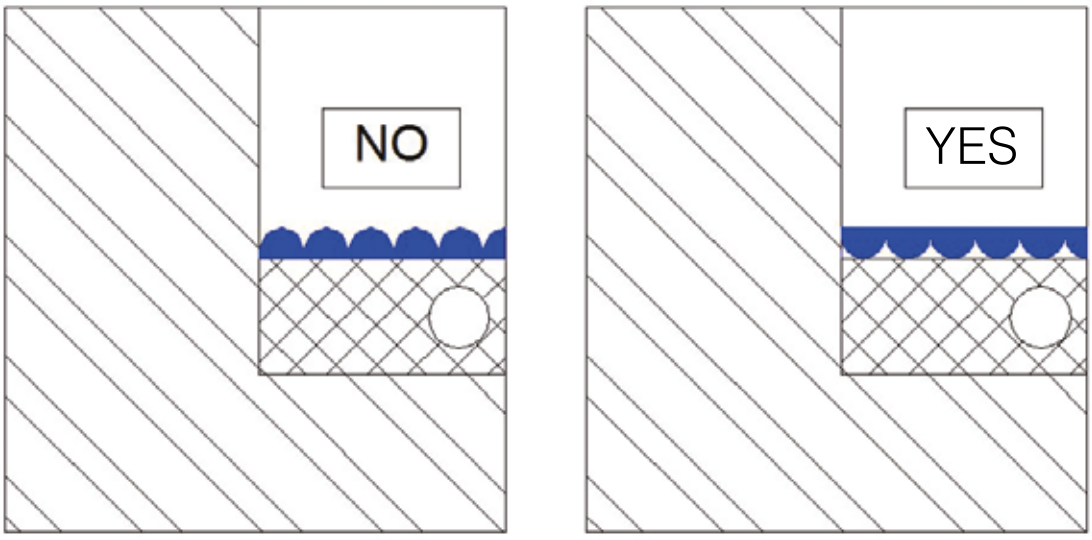
If the springy sound-proofing is fibrous or porous (e.g. panels of fiber-glass panels or high density rock-wool, high density polyester panels, etc.) or has a fibrous or porous surface layer (e.g. a crosslinked poly-ethylene foam/polyester laminate), it must not be allowed to soak up the concrete during casting.

Therefore, protect the sound-proofing before casting by covering it with overlapping sheets of poly-ethylene taped together.

In the event of a multi-layer, such as cross-linked polyethylene foam with a polyester laminate, the poly-ethylene layer will prevent water or concrete absorption by the fibrous/porous layer of the material.

Ensure that the poly-ethylene layer is on top. In some cases, the manufacturer of the springy sound-proofing will indicate “this side up” when laying this. The indicated side must be laid facing upwards.

The concrete used for laying the flooring tiles must be high density and at least 5 cm thick (min 80 kg/m^2)



We recommend reinforcing the concrete with a net. You should also take into account the type of the resilient material used.

During casting, take great care not to damage or tear the resilient sound-proofing. Again, for this reason we recommend covering the soundproofing with sheets of poly-ethylene as this would provide a sufficient protection.

The concrete must not be allowed to set against the side structures (perimeter walls). This means that the sound-proofing should be allowed to rise up the sides of the walls or a vertical strip be cut especially to insulate the walls. Again, any such vertical strips must be continuous and unbroken. There must be no gaps between the sound-proofing on the floor and that lining the walls.

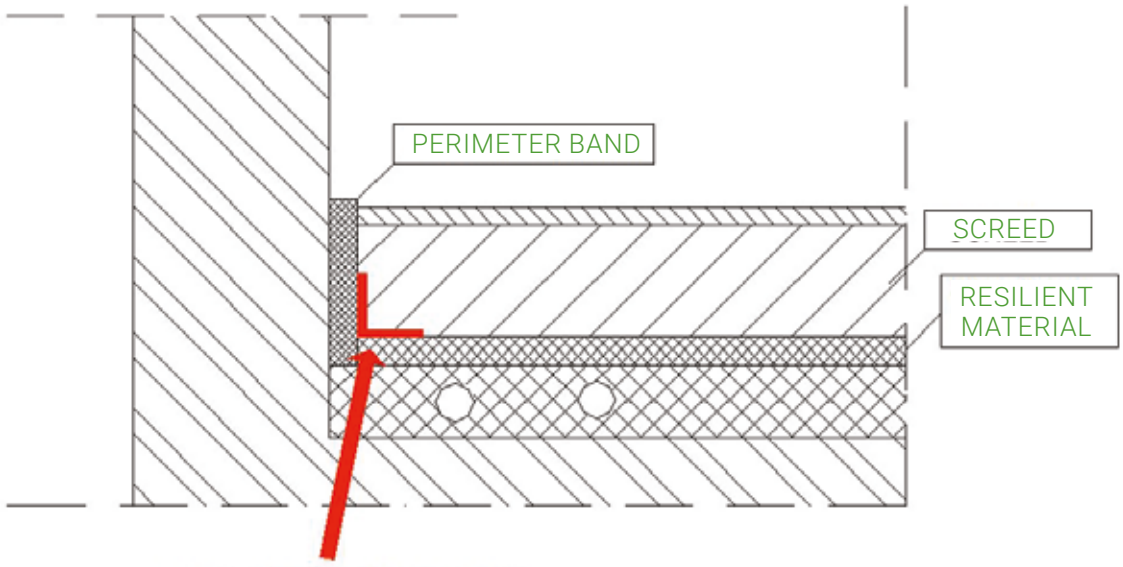
There are several ways to guarantee this:

• **connect** the two sections with adhesive tape

• **use strips** of self-adhesive sound-proofing

• **ensure** that any polyethylene sheeting used continues up on the structural walls

• **ensure** that the sound-proofing on the ground continues up on the structural walls



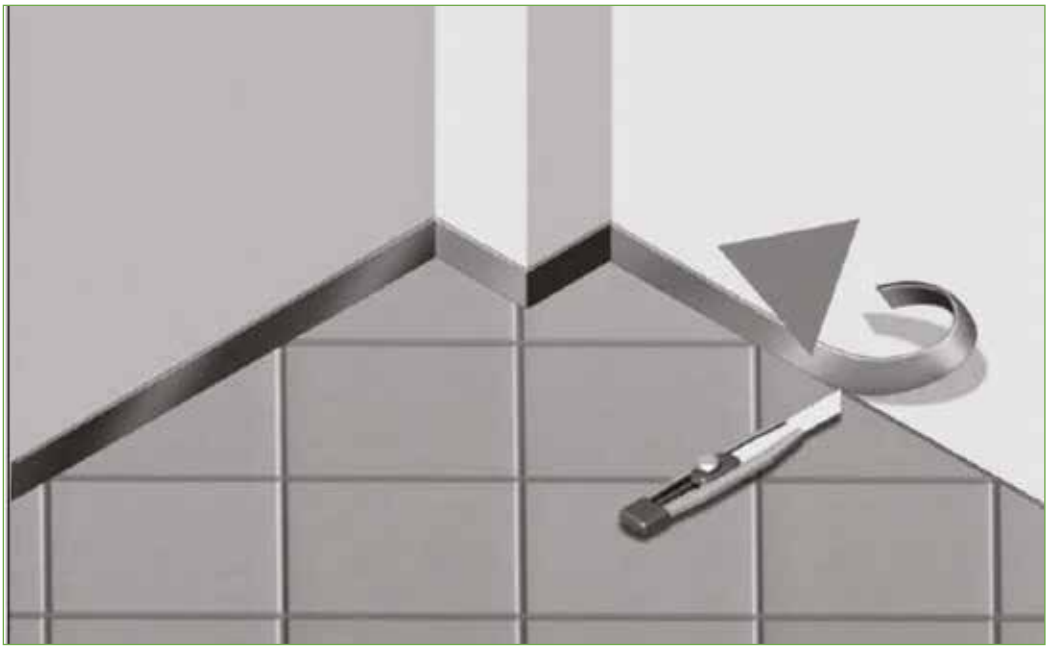
REMARK: TO CONNECT THE TWO MATERIALS
BY AN ADHESIVE TAPE OR TURN-UP

The vertical section must not be punctured by any cables or pipes.

We therefore recommend that all cables and pipes (except for floor heating pipes) are positioned under the sound-proofing.

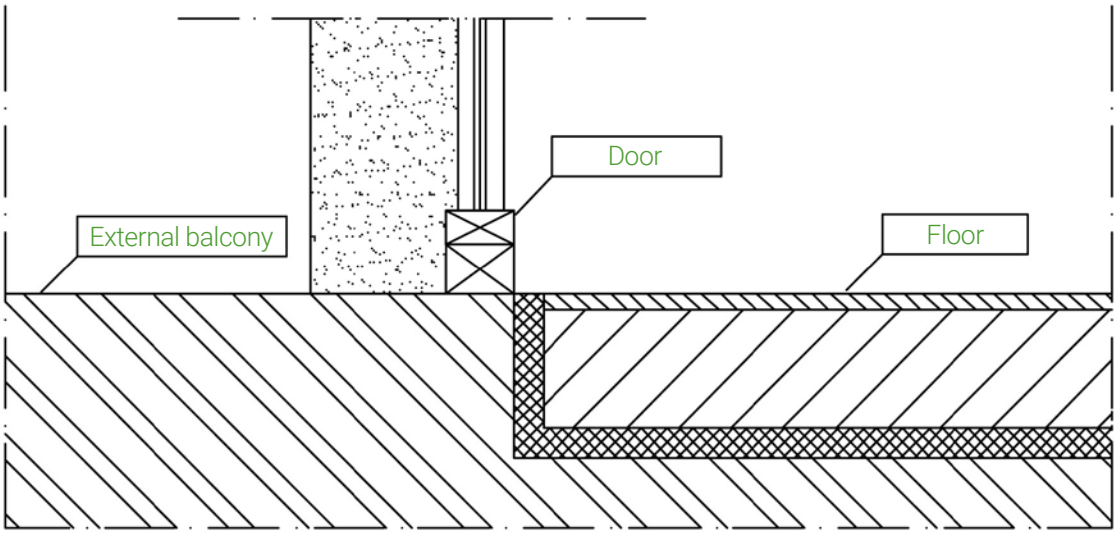
The side strips must be at least **5 cm higher** than the final height of the floor.

Trim any excess material only after finishing the flooring (i.e. after laying the floor) to avoid the risk of the tiles or parquet from coming into contact with the perimeter walls.



Take great care when creating the upturns around doors and French-doors leading onto balconies.

These must always guarantee that the floating paving and the external structures are completely separate.

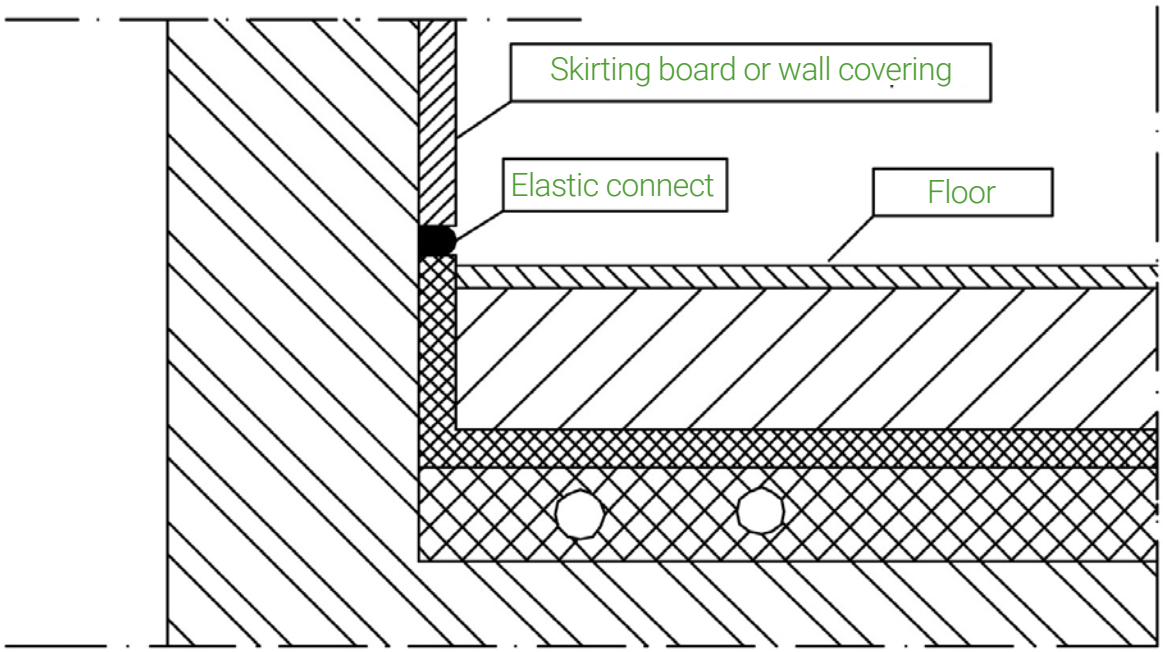


Both the skirting-boards and the wall-tiles in bathrooms and kitchens must be a few millimeters apart from the flooring to avoid the formation of rigid connections between the floor and the walls.

Here we recommend that you add a strip of material in the corners (before fitting the skirting-board or attaching the wall-tiles) to create an elastic joint (e.g. insulating silicon, a strip of self-adhesive sound-proofing, poly-ethylene tape, window sealant, etc.).

Another way of dealing with this problem is to run a spacer (e.g. a metal bar, PVC element, etc.) along the walls.

You can then remove this and seal the gap with a springy (non rigid) substance (e.g. insulating silicon, plastic plaster, etc.).



In the event a floor heating system is installed, make certain that the floating floor and the external structures is not connected. Therefore to ensure that vibrations are not transmitted, make certain to:

- **Separate** the manifold boxes from walls by covering them with a layer of springy soundproofing and then fixing them to the wall with rubber wall plugs.
- **Cover** heating pipes with springy sheathing wherever the pipes cut through upturned soundproofing along the walls.
- **Fix** the up-pipes to walls using flexible collars.

We recommend placing the manifold boxes in the corridor of apartment dwellings.

INTERNATIONAL LOCATIONS

Lead Plant

TROCELLEN Italia S.p.A.
Sales office
Via Dante, 3
20867 Caponago (MB), Italy
Ph. +39 02 959 621
Fax +39 02 959 62 235

Polifoam Plastic Processing Co. Ltd
Táblás u. 32
1097 Budapest, Hungary
Ph. +36 1 347 98 00
Fax +36 1 280 67 08

TROCELLEN GmbH
Mülheimer Straße 26
53840 Troisdorf, Germany
Ph. +49 2241 2549000
Fax +49 2241 2549099

TROCELLEN S.E.A. Sdn Bhd
Lot 2213, Kg. Batu 9 Kebun Baru,
Jalan Kasawari
42500 Telok Panglima Garang
Selangor Darul Ehsan, Malaysia
Ph. +60 3 3122 1213
Fax +60 3 3122 1211

TROCELLEN Ibérica S.A.
C/Avila, s/n
28804 Alcalá de Henares, Spain
Ph. +34 91 885 55 00
Fax +34 91 885 55 01

TROCELLEN France
Bureau de vente
2 rue de Comméres,
Immeuble les Peupliers
F-78310 Coignéres, France
Ph. +33 (0) 130 85 93 40

insulation@trocellen.com

FOLLOW US ON TWITTER

CONTACT US ON LINKEDIN

TROCELLEN*

Trocellen is a multinational company owned by Furukawa Electric Co. Ltd, internationally renowned for the design and manufacture of cross-linked polyolefin foam.
Through its different Business Units, the company is able to meet the specific needs of the market with a wide range of products and solutions.
It manufactures both semi-finished and finished products. The Trocellen products stand out for their manufacturing processes and the many industrial sectors in which they can be used: Insulation, automotive, footwear, sport and leisure, adhesive tapes and packaging. Trocellen makes safety a lifestyle and turns safety into a lifestyle.

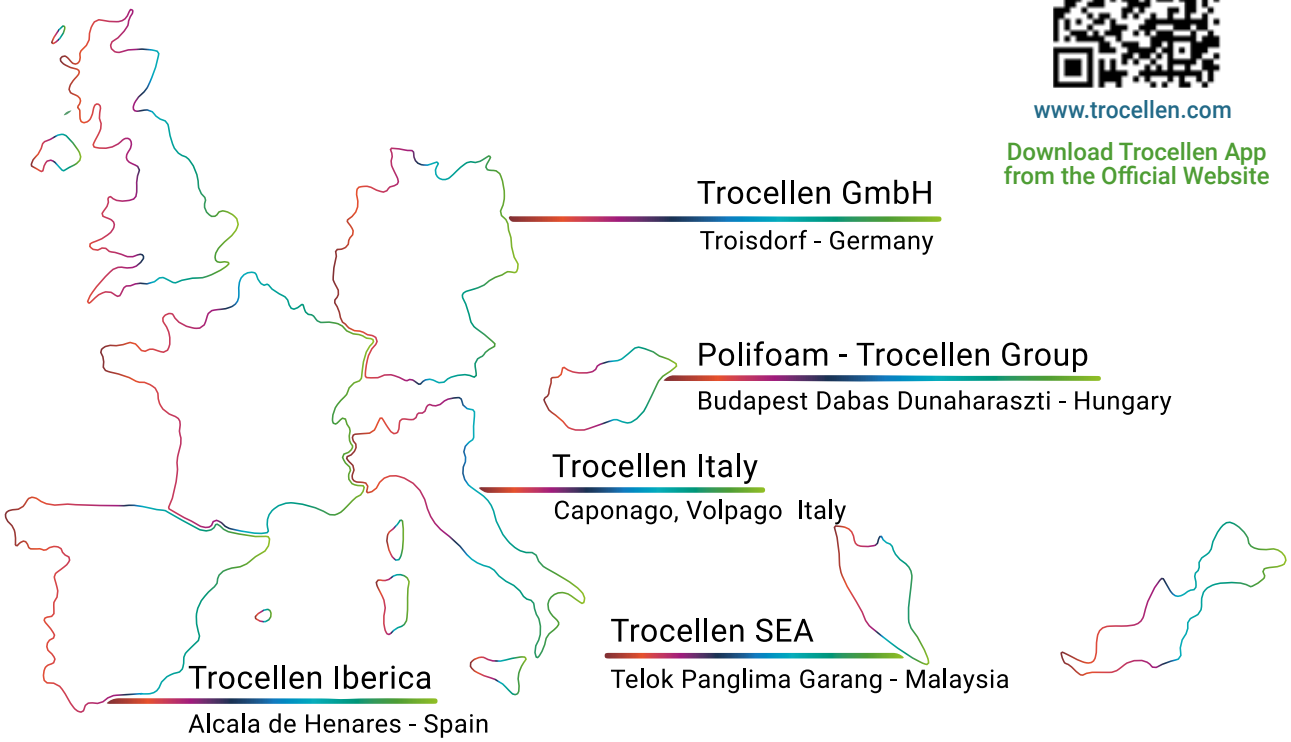
Insulation Business Unit

The Insulation Business Unit mainly specialises in Sound and Thermal insulation for the building industry. The goal is to create comfortable environments for people or rather to “help people live better!”.

*Trocellen is the member of Furukawa Group.

www.trocellen.com

Download Trocellen App from the Official Website



© 10/2024 Trocellen GmbH