



EFFECTIVE IMPACT SOUND REDUCTION, ACOUSTIC AND THERMAL FLOOR INSULATION





Soundproofing Floors for Part E Building Regulations

An increasing proportion of buildings and residential dwellings encounter problems related to noise. In addition, as we create more multi-occupancy buildings within our cities and towns, the issue of controlling sound through building design and construction is crucial.

Marmox sound reduction solutions for floors help architects, developers and contractors to achieve compliance with the requirements of Part E of the Building Regulations. In England, Wales, Ireland or section 5 of the Scottish Building Standards, both relate to the resistance to the passage of sound within a property. These include the requirements for sound insulation in both new dwellings and dwellings-houses and flats formed by material change of use.



Different types of sound

In buildings, three different types of noise can result in noise pollution.

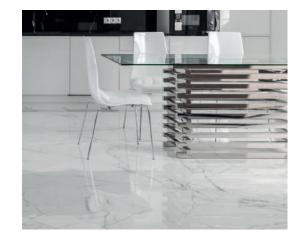


- Reflected or reverberated sound
- 2 Airborne sound
- **3** Impact sound

The sound conductivity of ceramic tiles

The sound conductivity of ceramic tiles is exceeded only by metals. Therefore, purpose-built dwellings and new-builds require a floor assembly that achieves a 62 decibels noise reduction to comply with Part E. To comply, the decibel rating for each element of the floor assembly should have a total equal to or more than 62 decibels in England, or 56db in Scotland, when added together. For dwelling houses or flats formed with a material change of use, and refurbishments, the floor assembly should achieve 64 decibels noise reduction.

Part E provides advice and design drawings to achieve the transmission of impact sound less than 62dB. One suggestion is to use a resilient layer. Several acoustic flooring types are available, mainly to come into line with Building Regulations for sound but most of these are not suitable for tiling on and therefore cannot be used.





Reducing sound transmission on a hard floor

Marmox soundproof insulation boards for tiled and wood/laminate floors reduce footfall sound being heard in the living space directly below. In addition, the Marmox SoundBoards include waterproofing, thermal insulation and decoupling properties to stop tiles from cracking due to movement.





For Tiled Floors

For Wooden/Laminate Floors

The Marmox SoundBoard effectively removes the solid link between the point of impact (i.e. the footfall on the tile) and the ceiling by placing a layer of rubber foam between, so the sound waves do not have a medium to pass through. As a result, the SoundBoard delivers a significant improvement in acoustic insulation.

Ceramic tiles or wood laminate on floors can make noises such as footsteps sound even louder in the room below. Many local authorities do not allow tiled bathrooms in shared accommodation for this very reason.

Marmox SoundBoard is much more than just an impact sound reduction layer – it also provides decoupling, so lateral movement in the floor is absorbed by the board and not by the tiles, so the tiles don't crack. It is entirely waterproof and, as well as improving acoustic insulation, helps to lock in heat in rooms where it's fitted.

Marmox SoundBoard -Soundproofing Solutions for Floors

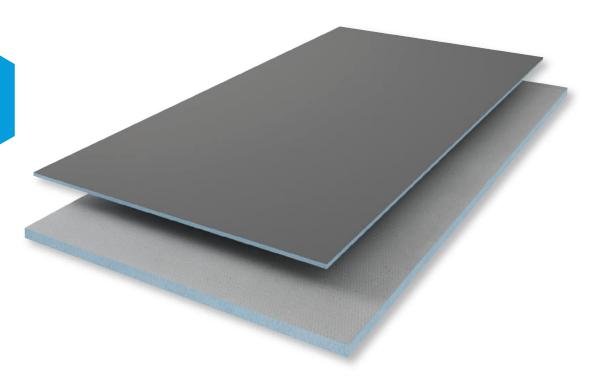




SoundBoard

Impact sound & thermal floor insulation

Meets local authority regulations for tiled bathrooms in shared apartments and flats





Key Benefits

- + High thermal insulation
- + Reduces impact sound
- + Fully waterproof
- Use with under-tile heating
- + Ready to receive tiles
- + Easy to cut
- + Marmox Lifetime Guarantee

Marmox SoundBoard is a tile backer board which reduces the impact noise that passes through a floor into the room below.

Like Multiboard it provides a completely waterproof layer, secure decoupling, thermal insulation and low compressibility but with the added benefit of effective impact sound reduction. One side of the board is coated with a sound attenuating layer of SBR rubber that isolates the tiled surface from the floor so that there is nothing for the sound waves to travel through.

The rubber compound is natural so there is no plasticiser migration ensuring the material neither shrinks, degrades or becomes brittle. SoundBoard will usually reduce the level of impact noise greater than the recommended minimum of 17dB.

SoundBoard is available in two thicknesses: 8mm and 12mm.

Both thicknesses contribute a sound reduction of approximately 20dB through a tiled floor. In addition, the 12mm board provides more enhanced thermal insulation than the 8mm version.















TECHNICAL DATA			
Test	8mm	12mm	
Thermal conductivity	0.042 W/mk	0.04 W/mk	
Thermal resistance	0.19 m ² K/W	0.30 m ² K/W	
Compressive strength to EN826	300 kPa	300 kPa	
DL _w Weighted impact sound reduction to ISO 140-8	28 dB	28 dB	
As above (with tiled surface)	20 dB	20 dB	
Dimensions	1250mm x 600mm	1250mm x 600mm	
Weight	4.5kg	4.9kg	



SoundBoard installation guide

How to install SoundBoard

The first step is to fix the boards, rubber-side down*, to the floor. To do so, use either a thin bed of flexible tile adhesive or Marmox Multibond. Multibond itself is a visco-elastic material, so it absorbs sound waves, thereby offering slightly more sound reduction and insulation than just using the boards on their own.

Marmox Multibond does, however, take 12 hours to cure sufficiently before tiling.



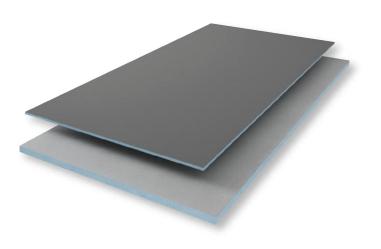


A gap of about 4mm should be left between the edge of the boards and the wall. Next, fill the gap with a visco-elastic adhesive such as Multibond to eliminate the possibility of flanking sound happening there.

After you have installed our soundproof insulation and absorption products, tape over the joints and tile as usual.

*When using with wood laminate flooring, the concrete face is fixed to the floor with Multibond so that the rubber side is facing upwards in contact with the laminate.

Easy does it with Marmox SoundBoard



Marmox self adhesive waterproof tape



Marmox Multibond adhesive and sealant





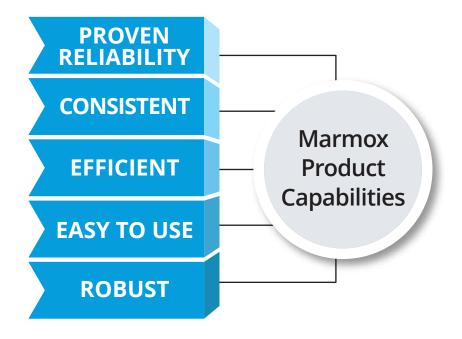
Marmox Systems

Marmox has a comprehensive portfolio of tried and tested products for the building industry.

Marmox systems for walls and floors

Multiboard Building board systems	Multiboard – wall and floor waterproofing & insulation boards The high performing substrate for tiles and plaster	
Shower Formers Floor-level shower bases	Showerlay & Minilay – shower floor formers Pre-formed floor level barrier free shower bases ready to receive tiling	
Slicedstone Natural mosaic tiling on a roll	Slicedstone – natural mosaic tiling on a roll Up to 80% faster to tile than traditional mosaic tiles	
Soundboard Thermal & acoustic insulation Meets the regulations for tile bathrooms in shared apartments and flat		

Marmox - the benefits



- + Completely waterproof
- + Will not bend, bow or distort
- + CE marked insulation board
- + BBA Certified
- + Lightweight and easy to cut
- + Quick and easy installation
- Lifetime guarantee

Quality Assurance

We are committed to the highest standards of excellence

A commitment to the highest standards of quality assurance underpins everything we do.

Below are some of our current accreditations.



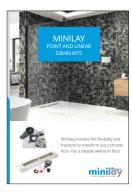














Other Marmox system solutions brochures are available on request



For information and advice on our products and services:

Tel: +44 (0)1634 835290 sales@marmox.co.uk www.marmox.co.uk

Marmox (UK) Ltd Caxton House, 101-103 Hopewell Drive, Chatham, Kent, ME5 7NP United Kingdom

