

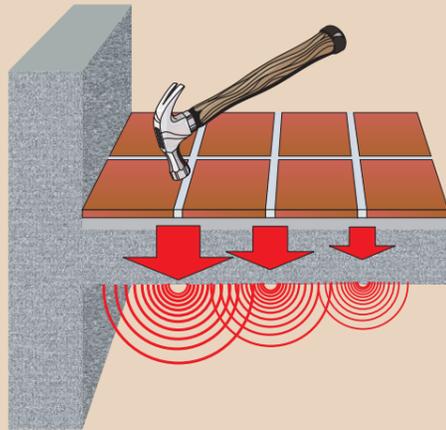
Ceramic tiles transmit impact noise

Ceramic tiles, unlike soft floor coverings such as carpet, are rigid and readily transmit impact noise. Where

the floor has another dwelling beneath in flats, for example, this can be a particular problem.

Noise insulation is required by Part E of the Building Regulations.

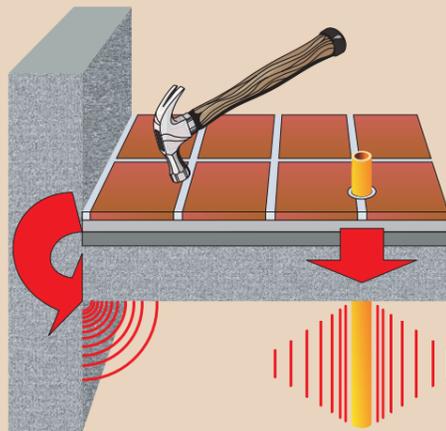
1 Ceramic tiles and adhesives transmit noise/vibration



Rigid materials such as concrete, metal, ceramic and stone offer much less resistance to the passage of impact noise than soft absorbent materials such as foam and rubber.

A rigid floor that has been tiled directly with ceramic tiles or natural stones will transmit impact noise and vibration through itself and into its supporting structure.

2 Impact noise can be transmitted through structures such as walls and pipes

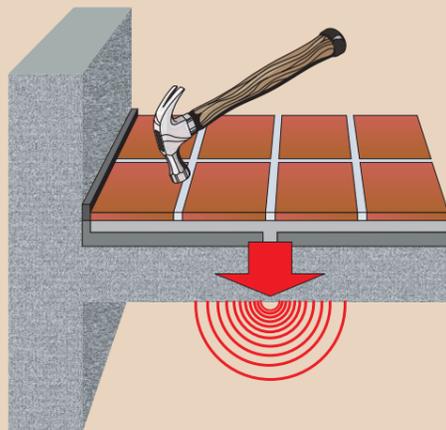


It is not enough simply to insulate the floor from direct noise transmission by applying an absorbent layer underneath the tile bed.

Noise/vibration can be transmitted via any other direct contact between the tile bed and the building structure.

The most common place for this to occur is around the perimeter of the tiled area at the junction with the wall but pipes, conduits, etc will also provide transmission paths.

3 Acoustic 'bridges' can be made inadvertently



Any part of the floor that provides a rigid path to the structure will allow noise/vibration to be transmitted.

During application the tile adhesive can penetrate the gaps between adjacent sections of insulating mat and form bridges of set mortar that will allow transmission.

Provide an acoustic insulation layer to prevent structure-transmitted noise

weber.floor 4955 dB floor is used to insulate floors from impact noise, which satisfies the requirements of the *Building Regulations 2000, Part E – Resistance to the*

passage of sound. The acoustic insulation is only 2 mm thick and also helps isolate the floor from the substrate, reducing the risk of reflective cracking.

When used with 25 mm fibre-reinforced levelling compound, the impact sound reduction is 18 – 20 dB.

Products required

weber.floor 4955 dB floor, weber.floor flex weber.set rapid SPF or weber.set SPF weber.joint wide flex or weber.joint pro weber.joint silicone, weber.floor 4945 fibre mesh

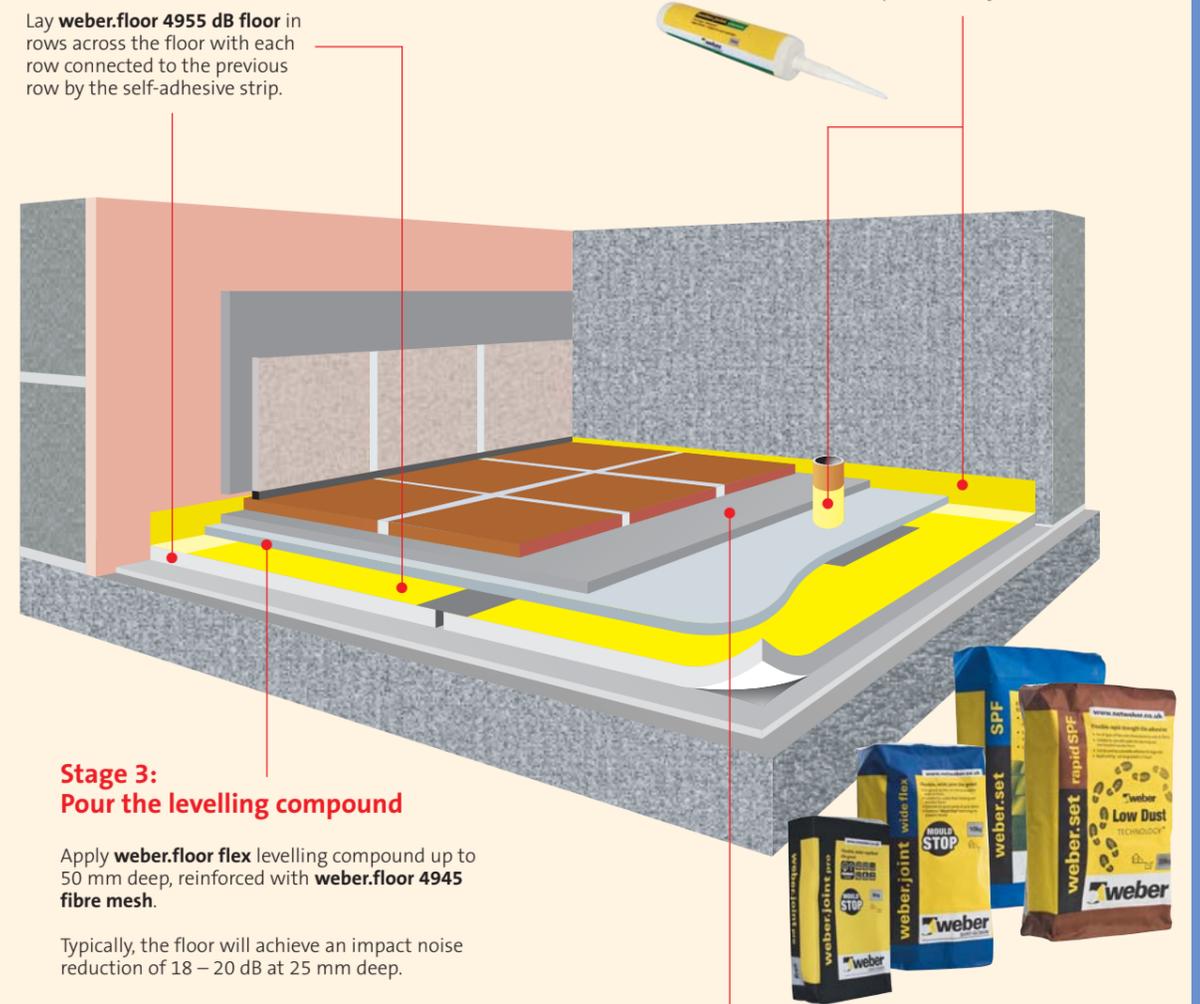
Stage 1: Apply the underlay

Ensure the surface is sound and fully dry. Fill any holes and remove any raised material. Sweep off any loose debris or dust.

Lay **weber.floor 4955 dB floor** in rows across the floor with each row connected to the previous row by the self-adhesive strip.

Stage 2: Protect joints and perimeters

weber.floor 4960 soft strips should be used on all vertical structures and pipes. The joints between the soft strips and tape should be sealed with tape or **weber.joint silicone**.



Stage 3: Pour the levelling compound

Apply **weber.floor flex** levelling compound up to 50 mm deep, reinforced with **weber.floor 4945 fibre mesh**.

Typically, the floor will achieve an impact noise reduction of 18 – 20 dB at 25 mm deep.



Stage 4: Fix and grout the tiles

Allow the levelling compound to dry for at least 3 hours. Fix the tiles with **weber.set rapid SPF** or **weber.set SPF** and allow to fully dry. Fill the grout joints using **weber.joint wide flex** or **weber.joint pro**.

It is essential that a flexible movement joint is made between the perimeter tiles and any skirting where the tiling abuts a non-insulated area of tiling and where the tiling abuts an edge trim or threshold.