

Floating Floor Isolation

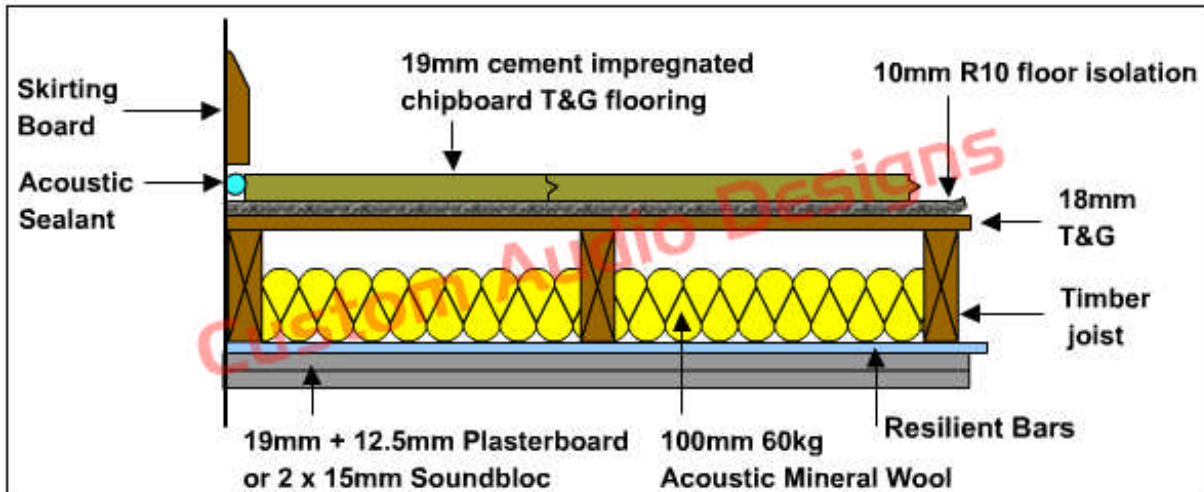
R10 insulation is made from a special vulcanised rubber/latex mix bonded to a layer of bituminated felt and supplied in roll form. It is designed to significantly reducing impact noise through floors as part of a floating floor system.



Incorporating the latest changes to the Approved Document E 2003, the minimum and maximum sound insulation requirement for separating floors are as follows:

	<i>Airborne Sound Reduction $D_{nT,w}+C_{tr}$</i>	<i>Impact Sound Level L_{nTw}</i>
<u>Conversion</u>	43dB or greater	64dB or less
<u>New Build</u>	45dB or greater	62dB or less

To comply with the requirements of the Approved Document E 2003, **R10** sound insulated separating floors have been tested in accordance with BSEN ISO 717-1997 and BSEN ISO 717:1997. Substituting the 25mm mineral wool floating layer normally specified with a more stable and efficient recycled rubber resilient layer. 10mm thick sound absorbing R10 is installed onto timber suspended floors as detailed below.



Using a floating layer of 19mm thick cement impregnated T&G chipboard placed on top of the R10 acoustic insulation as shown above, the following test result was recorded:

Airborne $D_{nT,w}+C_{tr}$ 45dB Impact L_{nTw} 61dB

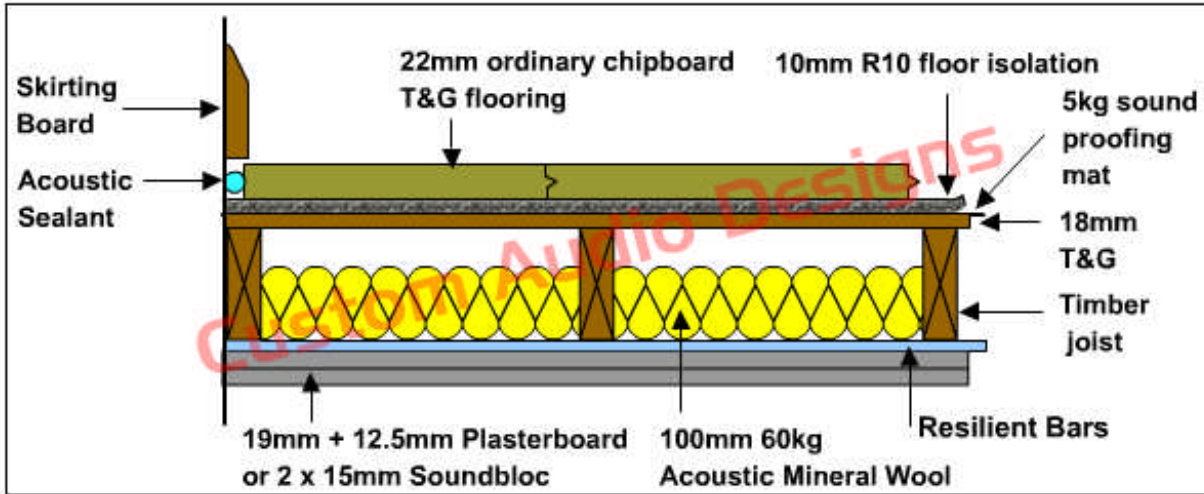
WHICH MEETS THE NEW CHANGE OF USE AND NEW BUILD REQUIREMENTS

Installation as a Basic Floating Floor.

Before laying the insulation it is important to ensure that the floor itself is perfectly sealed. Any small holes or gaps should be filled with flexible mastic or overlaid with soundproofing mat, glued down, to reduce airborne sound penetration.

The insulation is simply unrolled over the existing floor with the smooth backing side uppermost. All edges should be butt jointed and offcuts can be re-used. The R10 can be cut easily with scissors or a sharp knife. 18-22mm T & G Flooring Grade Chipboard should be applied directly on top of the insulation. The T&G floor surface should be applied directly on top of the R10 with the joints glued using a PVA wood adhesive or our own sealant. No mechanical fixings must be used which may penetrate the R10 insulation. A gap of around 5mm should be left around the perimeter of the floor (read specific flooring manufacturers instructions for likely expansion). The flooring chipboard should not touch the walls. This gap should be completely filled with our flexible acoustic sealant. When applying skirting boards, allow a 2-3mm gap between the skirting and the top of the flooring. This gap should not be filled unless the material used is flexible and non-hardening.

Load bearing and stud partitions should be constructed from the base floor before the installation of floating floors. Under no circumstances should our R10 be used as a load bearing component.



If the existing floor is square edges floorboards it's a good idea to seal the floor off first by using a layer of our soundproofing mat.

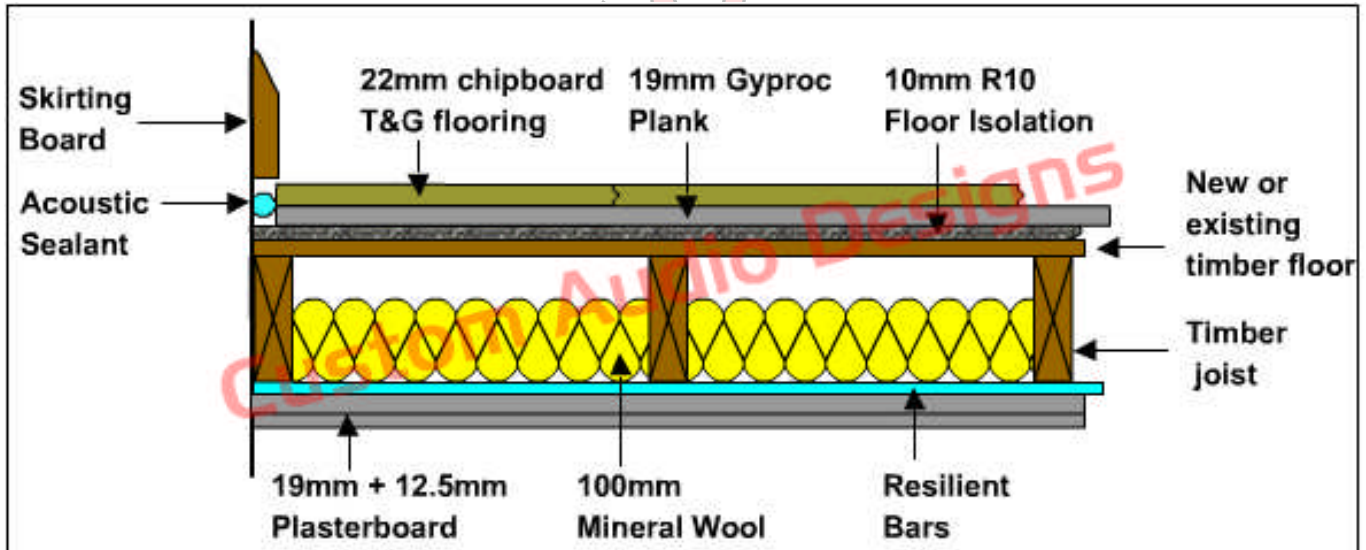
By replacing the 19mm thick cement impregnated T&G chipboard with ordinary 22mm T&G flooring grade chipboard on top of the R10 acoustic insulation, the following test result was recorded:

Airborne $D_n T_w + C_{tr}$ 45dB **Impact $L_n T_w$ 63dB**

WHICH MEETS THE NEW CHANGE OF USE REQUIREMENTS

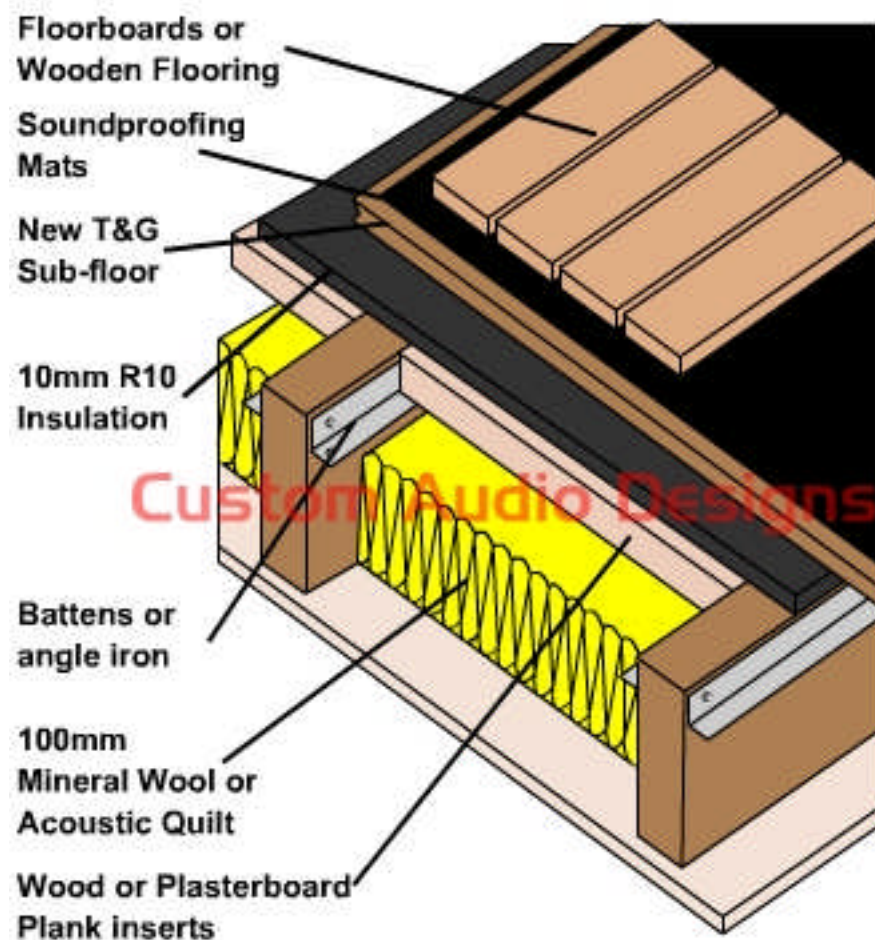
Incorporating additional mass on the top floor layer as well as resilient bars for the ceiling below the tested performance of the structure below (excluding the C_{tr} adjusting factor for airborne noise):

Airborne **61dB R_w** Impact $L_n T_w$ **55dB**



If you wish to have your old floorboards as the finish flooring or add a solid wood floor and want to install soundproofing underneath the best way is shown below. If you need to keep the floor rise to a minimum you can add the wood plank inserts flush to the existing joist tops. Then you can lay an isolated subfloor using R-10 floor insulation with a glued tongue & grooved base on top. The existing floorboards can then be secured **ONLY** to the T&G subfloor. It is **essential** that the screws do not penetrate the layer of insulation and go through into the joists or wood inserts otherwise the insulation will be compromised by the screw contact and impact noise will get back through again.

A small gap must still be kept around the perimeter so that the floorboards do **not** make contact with the walls otherwise, again, the insulation will be breached. It must still be taken into consideration that this method will still raise the floor by up to 50mm (2").



General Physical Data

Color	Black
Size	5m x 1m
Form	Rolls
Density	300 Kg/m ³
Weight	3 Kg/m ²
Nom. Thickness	10mm

We have other solutions that incorporate this product especially on performance enhancement - call or email us for further details.

All information contained in these details is given in good faith but without warranty. Custom Audio Designs reserves the right to alter the specifications of any product without notice.