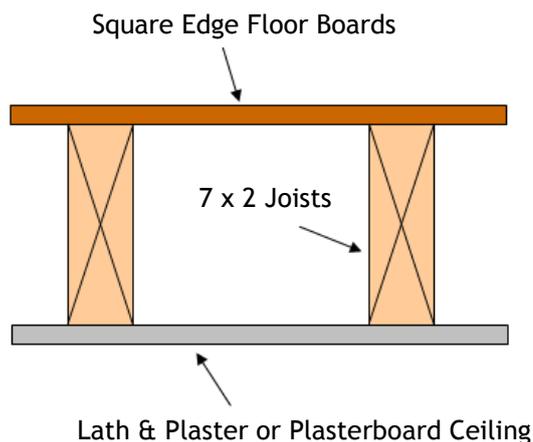


## Conversions

Conversion projects invariably have an existing timber structural floor. These floors which will now become a separating floor between dwellings can have a variety of different ceiling systems in place.

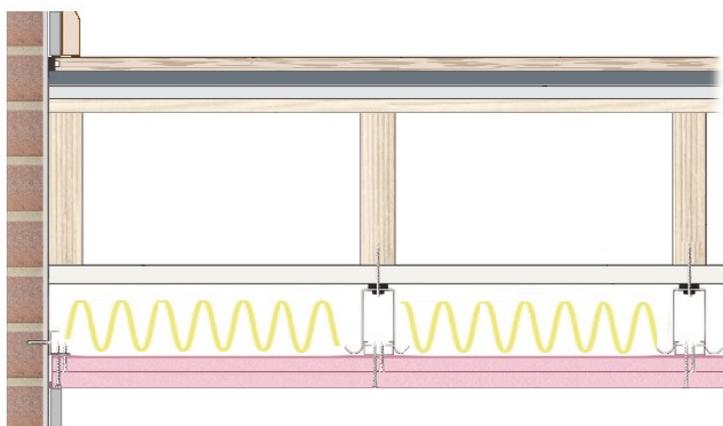
A typical timber structural floor before an acoustic floor and ceiling system have been applied, will perform to about 32dB for airborne sound and 75db for impact sound.



This kind of floor will need considerable improvement to meet the requirements of Document E. InstaCoustic specialises in this market and we have undertaken, with UKAS/ANC Acousticians, hundreds of sound tests on timber floors. This extensive testing data has enabled us to develop a combination system that will exceed the sound regulations and avoid the huge cost of sound test failures.

The best way to upgrade a timber floor is to install an acoustic floor and ceiling system (See LABC Registered Acoustic Solutions on our web site at [www.instacoustic.co.uk](http://www.instacoustic.co.uk)).

### Registered Acoustic Solution EINS/0309/00001



It should be noted that depending on the construction the external walls can flank sound. Therefore we would strongly recommend that you contact InstaCoustic so that we can provide advice and a solution on this issue.

## Conversions

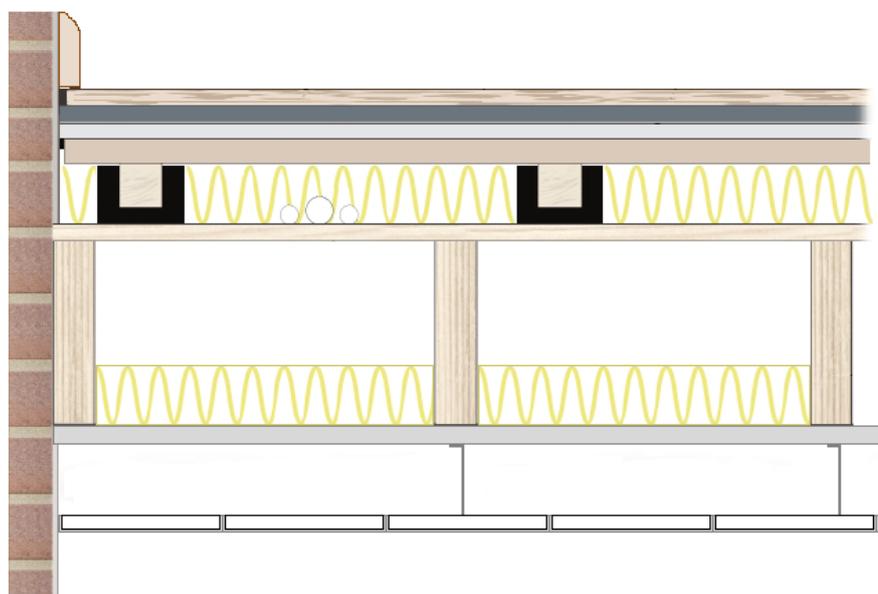
### *When there is no access to the ceiling below*

Occasionally it is only possible to treat the floor because there is no access to the ceiling below. In such cases an acoustic floor that reduces both airborne and impact sound is vital. Bonded chipboard products are only suitable to reduce impact sound. The InstaCoustic dual floor system can pass the Document E sound test without a ceiling treatment. Please see the Registered Acoustic Solution EINS/0309/00004. This detail is for a situation where there is Retail use below a residential apartment. This solution would also apply where there is no access to an existing flat below a space that was being converted.

### *Dealing with the fire regulations*

If 60 minutes fire resistance between dwellings is required the InstaCoustic AC90/2FP ceiling system will enable you to meet this standard. Sometimes the flat being converted is above a shop or commercial premises. In such cases there is no access to the ceiling below and the fire regulations cannot be achieved. In these cases the InstaCoustic Intudeck insulation batt can be fitted between the existing joists to achieve up to 90 minutes fire resistance.

### Registered Acoustic Solution EINS/0309/00004



This detail would also apply where there is no access to the ceiling in the flat below a conversion.

## Conversions

### *Assessing manufacturers test data*

Many suppliers of sound insulation products quote laboratory sound tests to demonstrate the performance of their systems. This causes considerable confusion regarding how well products will perform when they are installed and are sound tested in the structure.

Laboratory sound tests do not take account of flanking sound and therefore produce sound insulation figures that cannot be reliably achieved on site. All structures will be subject to flanking sound to varying degrees and therefore field sound test data will show the real performance of a system in a building.

Laboratory sound tests can be identified by the way in which sound is measured. All Laboratory sound test results will be show airborne sound as  $R_w (+Ctr)$  figures whereas field tests are shown as  $D_n T_w + Ctr$ . When assessing laboratory sound test data Acousticians will typically reduce these test results by 5 to 8 dB as indicators of performance on site because they don't take account of flanking sound. When deciding which products to use you should always use field test data that shows the real performance of the system when it is installed.

Airborne sound from the Hi-Fi travels through the separating floor and it will also flank down the walls bypassing the floor. Field sound tests measure both forms of sound transmission providing a true indicator of performance.

