

An easy solution
to solving sound problems
with the added benefit of a
Junckers Hardwood Floor.

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Junckers are Europe's leading manufacturer of real solid hardwood flooring providing floors for residential, commercial and sporting applications.

On the 1st July 2003 the new Approved Document E of the Building Regulations came into force.

The new regulations apply to all types of residential buildings whether they are new build or refurbished and converted projects. They include not just houses, flats or apartments but also hotels, hostels, nursing homes and student accommodation.

Document E covers sound transference passing between walls and floors between separate dwellings and not within the same dwelling.

Both impact noise and airborne noise are covered in this document

Part E sound reduction requirements for separating floors in England and Wales are as follows.

New build flats/apartments

Separating floor	Airborne Min. 45dB
	Impact Max. 62dB

Part H sound reduction requirements for separating floors in Scotland are as follows.

Refurbished or Conversions

Separating floor	Airborne Min. 43dB
	Impact Max. 64dB

For the purpose of evaluating the performance of an acoustic floating floor it is also important to express the reduction in impact sound that the floating floor has on the sub floor.

Separating floor	The regulations require a minimum figure of 17Db.
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Noise levels between separating floors are affected by the mass of the floor, air voids and isolation of varying parts of the structure. Soft floor coverings reduce impact sound, but hard floor coverings can also reduce the impact sound if isolated from the main structure beneath.

Junckers systems have been produced and tested to the requirements of the new regulations in England, Wales and Scotland.

The new standard however also requires that once installed it is the responsibility of the builder to ensure that the required decibel levels as shown above have been achieved. This is done in one of two ways, either carrying out Pre-completion Testing or ensuring that the systems used have been laboratory tested and follow the guidelines as shown in the Robust Details.

It is quite normal that in most instances the airborne sound figure will be achieved by the mass of the concrete so it is the impact reduction, which can be reduced by the inclusion of our systems.



"Junckers have developed and tested two systems for use over concrete sub floors, which conform to the new regulations have been laboratory tested and are suitable for reducing impact sound following the Robust Details."

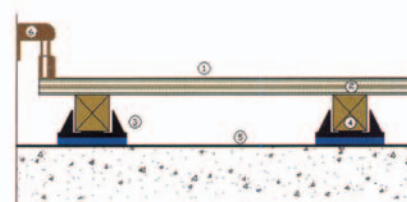
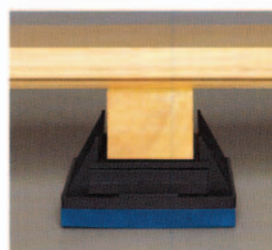
NewEra

Acoustic Cradle system.

The New Era Acoustic system is ideal for areas where the sub floor is uneven and height is not an issue. The customer has 2 options, both of which conform with excellent results to the new regulations.

Either installing a chipboard base, which is then ready for finishing later with a thinner 14mm Junckers board, which is ideal to allow other construction trades to work without damaging the fine hardwood surface

Or fitting a 22mm or 20.5mm thick Junckers board direct over the New Era Acoustic system.



CLIP SYSTEM

If height is an issue and if the screeded finish is flat and level than simply install a 14mm thick Junckers board over the 5mm thick CA2 underlay to achieve good results.

Our Technical Area Managers and office based Technical staff are on hand to offer a NBS specification service to specifiers regarding the use of our systems where designed as an acoustic floor.

Test results for Impact sound tests and Reduction in Impact sound are as follows:

22mm Junckers flooring secret nailed to battens supported by the New Era Acoustic Cradle system with insulation between the battens.

Impact sound 50dB
Reduction in impact sound 26db

14mm Junckers flooring installed with the clip system over Junckers 2mm Sylvafelt underlay over 18mm chipboard which is secret nailed to battens supported by the New Era Acoustic Cradle system with insulation between battens.

Impact sound 46dB
Reduction in impact sound 30db

Junckers 14mm boards installed with the clip system over a CA2 5mm underlay onto a concrete sub floor and screed.

Impact sound 51dB
Reduction in impact sound 19db

These systems are suitable for the installation of our flooring on new or existing concrete slabs. The test results shown were carried out by SRL Ltd in Sudbury over a 150mm thick hollow concrete slab of a mass of 300kg/m2 in accordance with BS EN ISO 140-6, 1998, BS EN ISO 140-4, 1998 and BS EN ISO 140-7, 1998



Installation Advice

New Era Acoustic system

The concrete sub floor must conform to BS8204 Part 1, 1987 and have a mass of 300kg/m² (min.) It must be tested for a residual moisture content of no more than 75% RH. Once this figure is achieved install a layer of Junckers Sylvathene vapour check membrane before setting out the cradles to support the battens. Each cradle can be packed up to a maximum of 20mm. Ensure that all packing pieces are glued or fixed to the cradle and batten. Insulation material is fitted between the cradles. Ensure that the battens when laid into the cradles do not touch any perimeter walls. Leave about a 30mm gap. Battens are laid with ends staggered and laid end to end. Either a chipboard floor or 22mm/20.5mm Junckers board is then installed over the battens.

Clip system

The concrete sub floor must conform to BS8204 Part 1, 1987 and have a mass of 380kg/m² (min.) It must be tested for a residual moisture content of no more than 75% RH. Once this figure is achieved install a layer of Junckers Sylvathene vapour check membrane. The screed must be flat to a tolerance of no more than 3mm gap showing under a 3m straight edge. Lay out the 5mm thick CA2 underlay over the polythene with close butted edges. Lay the Junckers boards in accordance with Junckers standard guidelines.

IMPORTANT. Leave a clear expansion gap at the perimeters in accordance with Junckers guidelines to allow for expansion. It is important to ensure that Junckers 5mm thick Flanking strip is loose laid in these perimeter gaps and against all fixed positions within the floor. The flanking strip is to be turned down and positioned between the underside of the skirting board detail and the top surface of the hardwood flooring. Trim off the strip flush with the face of the skirting.

GENERAL ENQUIRIES UNITED KINGDOM
TEL: 01376 534 700

GENERAL ENQUIRIES REP.OF IRELAND
TEL: 1-800-523 138

BROCHURES
TEL: 01376 534 700
EMAIL: BROCHURE@JUNCKERS.CO.UK

SALES
TEL: 01376 534 710 FAX: 01376 514 401
EMAIL: SALES@JUNCKERS.CO.UK

TECHNICAL
TEL: 01376 534 720 FAX: 01376 534 735
EMAIL: TECH@JUNCKERS.CO.UK

Distributor



Junckers Limited, 1a, Wheaton Road, Witham, Essex CM8 3UJ.

web site www.junckers.com