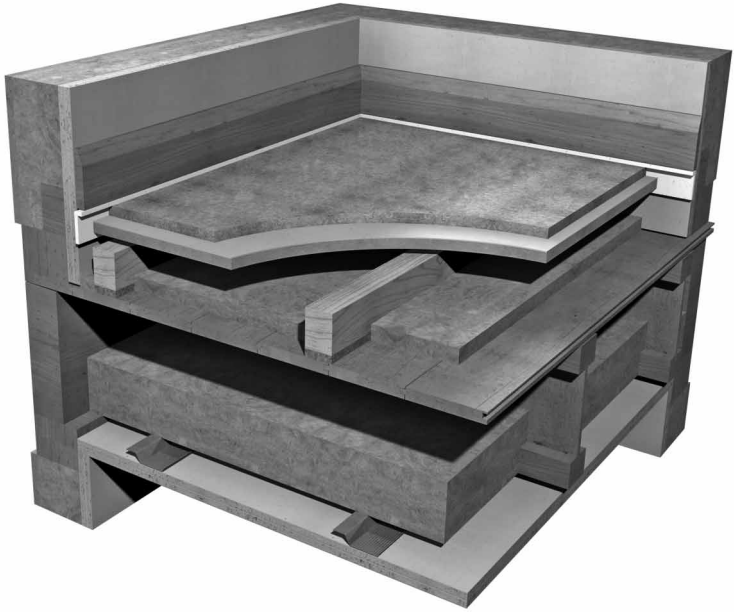
isocheck™
acoustic insulating products

Issue 3.7• May 2024

One of the isomass systems range

# Deep Batten System

## Installation instructions



## SUSPENDED SYSTEM FOR TIMBER & STEEL FLOORS for

- New build
- Refurbishments
- Conversions
- In conjunction with underfloor heating systems

E1 CHANGE · E1 NEWBUILD · DOMESTIC · Rd ROBUST · N · R · C

TESTED BY NHBC ACOUSTIC SERVICES

Institute of Acoustics Sound•Noise•Vibration 1974–2024 Sponsoring Organisation

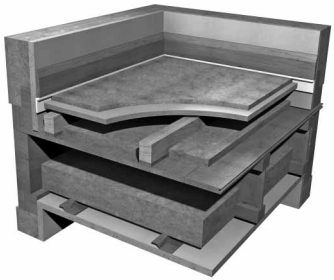
MADE IN THE UK

QAS International ISO 9001:2015 REGISTERED COMPANY

Recyclable post-use

## PRODUCT DATA

| | |
|---|---|
| Overall size: | 1800 x 45 x 75mm |
| Resilient layer thickness: | Down to 14mm under normal load |
| Resilient layer: | 13 - 14mm reconstituted ACF (Acoustic Chip Foam) |



- 18mm or 22mm chipboard and gypsum-based board nominal 13.5 kg/$m^2$.
- Isocheck Deep Batten @ 400mm max. ctrs to run perpendicular to the joists.
- 25mm mineral fibre insulation 36kg/$m^3$ structural deck, typically 18mm OSB.
- 100mm quilt insulation min.10kg/$m^3$ between composite, traditional or steel joists.
- min 24kg/$m^2$ double boarded ceiling on resilient bars affixed perpendicular to joist direction.

## DESCRIPTION

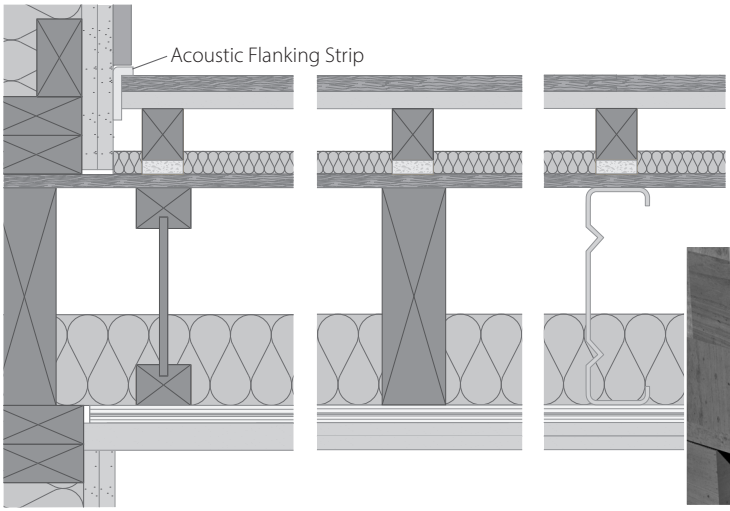
- ❏ The Isocheck Deep Batten system is designed to reduce transmission through timber floors within a timber frame structure.
- ❏ To be used over timber floors with a timber frame or masonry facade (to hide services or accommodate underfloor heating beneath the floor) and a new resilient bar ceiling for new build timber frame or steel frame projects, refurbishments and conversions.

## PREPARATION

- ❏ The sub-floor is to be swept free of any loose debris leaving a smooth surface on which to place the Isocheck Batten. The building must be weatherproof and completely dried out before commencing installation of the flooring system. It is most important for the reduction of airborne sound to block any air passage in the structural floor, at the perimeter of the floor and wherever the floor is penetrated. Any flooring components exposed to wet conditions should be replaced.
- ❏ The location of services should be detailed at an early stage. Services should be kept at least 150mm away from walls to allow space for perimeter bearers.
- ❏ Do not place large quantities of material such as chipboard or plasterboard on top of laid flooring as this extreme loading can damage the resilient layers. All components should be kept inside, and in dry conditions at all times.
- ❏ Risks can be significantly reduced by good detailing and the use of modern flexible adhesives. When laying ceramic tiles on floating floors please contact us for advice.

## INSTALLATION

- ❏ Where lightweight non-load bearing partitions are built from the top of the floating floor a double row of Isocheck Deep Battens should be placed beneath the partitions. Alternatively, if the line of a partition is not supported by a structural joist a supporting ladder frame of Deep Battens should be created.
- ❏ The structural performance and location of partitions should be in accordance with the recommendations of the timber kit supplier.
- ❏ All Isocheck Deep Battens must either be laid directly above the main floor joists running in the same direction or be laid perpendicular to the direction of the structural joists and be supported by them.




Flanking Strip turned back under skirting and trimmed flush with a sharp knife.

- ❏ Lay Deep Battens around the perimeter of the room approx. 50mm from the wall. Battens should then be laid at 400mm centre's under normal domestic loading.
- ❏ In a timber frame construction load bearing partitions are constructed prior to the installation of the acoustic flooring.
- ❏ Mark the desired location of any non load bearing partitions. Lightweight non-load bearing partitions can be constructed from the timber deck providing all necessary noggins and supports are located before fixing of the timber sub floor.
- ❏ Start each alternate row of Deep Battens with a cut length so that joints are staggered leaving gaps at the ends. Where services run across battens - do not notch.
- ❏ Cut Battens and place approximately 25mm either side of the pipe. Decrease the Batten spacing to between 200 & 300mm apart directly below isolated heavy loads such as bathroom and kitchen furniture and appliances. Place Isocheck Deep Batten across each doorway so as to form a ladder frame to provide extra support.
- ❏ Ensure that a gap is left between the bottom of door frames and the top of chipboard flooring.
- ❏ Where non load bearing partitions run perpendicular to the structural joist line or run directly above the line of structural joists - place double rows of Deep Battens to provide additional support. Alternatively, if the line of a non load bearing partition is not supported by a structural joist a supporting ladder frame of Deep Battens should be created.
- ❏ Lay the gypsum-based board across the Deep Battens in a brick-bonded method ensuring that all short edges of plank rest centrally on a batten. Leave a clear 10mm gap at the perimeter. Fix the gypsum-based board to the bearer using gypsum nails long enough to securely fix the board but not so long as to bridge the Battens resilient layer. The gypsum-based board should be surface nailed with a minimum of three nails across the face.
- ❏ 18mm thick chipboard should be used where bearers are at 400mm centers and normal domestic loading is anticipated. Ensure that the edge joints of the chipboard do not coincide with the edge joints of the plank. Short edges of chipboard should always rest above the Deep Battens.

- ❏ Fix the chipboard using annular ring shank nails or screws, with four fixings across the width of each board. Fixings should be a minimum of 2.5 times the thickness of the board and longer if plank is in use. Care should be taken to ensure that the resilient layer on the bottom of the bearer is not bridged.
- ❏ All tongue and grooved joints must be glued continuously with adhesive on both the top of the tongue and bottom of the groove on each side of the joint. All joints must be tightly butted and excess glue removed with a damp cloth. Ensure that gaps where services come through the flooring are sealed with acoustic sealant to prevent airborne sound leakage.
- ❏ Position the Isocheck Flanking Strip in the perimeter gap adjacent to the perimeter wall. The preformed `L` shape will prevent it from falling down the gap. Fix the skirting board , lightly trapping the strip between the bottom of the skirting board and the flooring. Remove any excess Flanking Strip with a sharp knife. It is essential to isolate the skirting from the floor to prevent impact sound flanking transmission. The Flanking Strip should not be removed on completion.
- ❏ In areas where heavy loadings are anticipated, such as kitchens and bathrooms, the bearer centre's should be reduced to between 200 & 300mm.
- ❏ In cases of extraordinary, loading advice should be sought from the specifier or manufacturer. Isomass Technical Department are available to provide advice where required.

## ADDITIONAL RECOMMENDATIONS

### ACCESS PANELS

- ❏ Providing they are preplanned , the provision of access panels is simple. Panels should be square edged and supported along all edges by isocheck battens. Access panels should be screwed down and sealed with acoustic sealant.

### STORAGE HEATERS

- ❏ Storage heaters are considered to be an extraordinary loading and may require support direct from the sub floor, independent of the flooring system. Contact Isomass Technical Department for advice if required.

### EXPANSION GAPS

- ❏ The need for intermediate expansion gaps between sheets of chipboard must be considered where there are uninterrupted runs of flooring more than 5 metres in length.
- ❏ Expansion provision should be calculated at a rate of 2mm per metre run.

**If in doubt on any area, please call Isomass prior to commencement of work.**

Every effort has been taken in the preparation of this sheet to ensure the accuracy of representations contained herein. Recommendations as to the use of materials, construction details and methods of installation are given in good faith and relate to typical situations. However, every site has different characteristics and reliance should not be placed upon the foregoing recommendations. Advice can be given as to specific applications of the products, upon request to isomass building products.

isomass® building acoustics

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