Batten & Cradle™ Flooring Systems

Recommended Installation Manual for Installers

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Introduction

Batten & Cradle™ systems are dry floating floors which provide an easily levelled under structure for supporting composite flooring. Concrete ground level supported floors must have a damp proof membrane and screed complying with the appropriate Codes of Practice and Building Regulations.

Storage

All components should be kept inside, under cover and in dry conditions at all times. Materials should be stored in the environment in which they are to be fixed at least 48 hours prior to fixing. Do not place large quantities of materials such as particleboard, timber or plasterboard on top of laid flooring system as any additional loading may cause damage and affect warranties. If in doubt refer to manufacturers manual for recommendations.

Preparation

The building must be weather proof and all materials must have reached their recommended moisture content before commencing installation of the flooring system. All joints and air paths between concrete units and at perimeter walls must be carefully and thoroughly grouted for effective performance of acoustic floors. Components exposed to wet conditions such as ingress of rain or plumbing leaks should be discarded and replaced.

Dryness of Concrete and Timber

Excessive moisture from cast in situ slabs and screeds which have not dried out can have adverse effects on flooring materials and timber components. Therefore “it is reasonable to recommend that the concrete be considered dry when the relative humidity falls to 75% or less” (when tested by use of a hygrometer). Where the dryness of concrete cannot be guaranteed it is recommended that a vapour barrier is installed that complies with the appropriate code of practice and building regulations.

Services

The provision of access to services is most successful if the location of services are identified on as built drawings. Services should be kept at least 150mm away from walls to allow space for perimeter support Battens. Any service penetration and detailing must be pre-approved by Batten & Cradle™.

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Design Recommendations

Partitions

Most lightweight timber or metal stud partitions may be constructed directly on the floating floor. Internal load bearing Partitions should be erected from the sub-floor and not on top of the floating floor. All partitions must be approved by the designer prior to their installation locations.

Access Panels

Batten & Cradle™ Flooring Systems are ideal for providing partial access to services. Access panels should be square edged and supported along all edges by Support Battens. The panels should be screwed to the battens without bridging the resilient layer.

Ceramic Tiles

As acoustic floors are designed to deflect vertically in order to reduce impact sound there are inherent risks in laying ceramic tiles on top of floating floors. However the risks can be significantly reduced by good detailing and the use of flexible adhesives. Ceramic tiles have been successfully laid on Batten Cradle System.

Support Batten & Cradle™ Centres

Support Battens and Cradles must be laid in accordance with centres specified.

Cradles and Support Battens

To ensure consistent levels throughout the building, commence in corridor areas proceeding to rooms. In each area work to a datum using packers and elevating blocks to overcome low areas or cambers. Ensure that each Cradle is sitting on a level, flat spot. Cradles should not rock or lie at an angle. Set out the Cradles and Support Battens where needed around the perimeter of the room so that the Support Battens are approximately 50mm from perimeter walls. Then lay the remainder of Support Battens levelling with the packers as required. Where Support Battens meet, the Cradle should be positioned so that it equally supports both ends. When laying alternate rows of Support Battens, commence with a half-length so that the joints are staggered.

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Services

The 20mm Resilient Cradle Support will not always allow for services to run underneath the Support Batten. In this instance cut the Support Battens and place approximately 8mm either side of the pipe. Fully support the Battens with additional Cradles. Additional noggins may also be required to properly support the specified floor.

Do not notch Support Battens
If it is intended that services run under the Support Battens a deeper Resilient Cradle Support should be specified and adequate clearance provided beneath the Support Batten. In acoustic systems ensure that gaps where services come through the flooring are sealed to prevent airborne sound leakage.

Packing

In order to achieve a level floor, place the correct combination of packers within the shoulders of the Cradle plate to a maximum of 5mm from the top shoulder of the cradle. If more packing is needed than what is achievable within the shoulders, a 100 x 100mm approved packer may be placed under the cradle. If two or more packers are used we recommend using a light adhesive between each packer. We recommend all packers be glued with a suitable construction adhesive between each other and the batten.

Perimeters

Ensure that there is an expansion gap of at least 5mm to 8mm between the edges of the flooring and at the perimeter walls. This gap must also be maintained at doorframes and filled with acoustic sealant.

Thresholds

A Support Batten on Cradles should be placed across the threshold for additional support. The flooring type should be configured so as to ensure no but joints are present.

Installation of flooring products

When laying flooring products such as carpet, vinyl and tiles on top of the Batten & Cradle™ Flooring System, always refer to the manufacturers instruction on how to install their products.

See details in:
James Hardie Brochure
Laminex Brochure
Futurebuild Brochure

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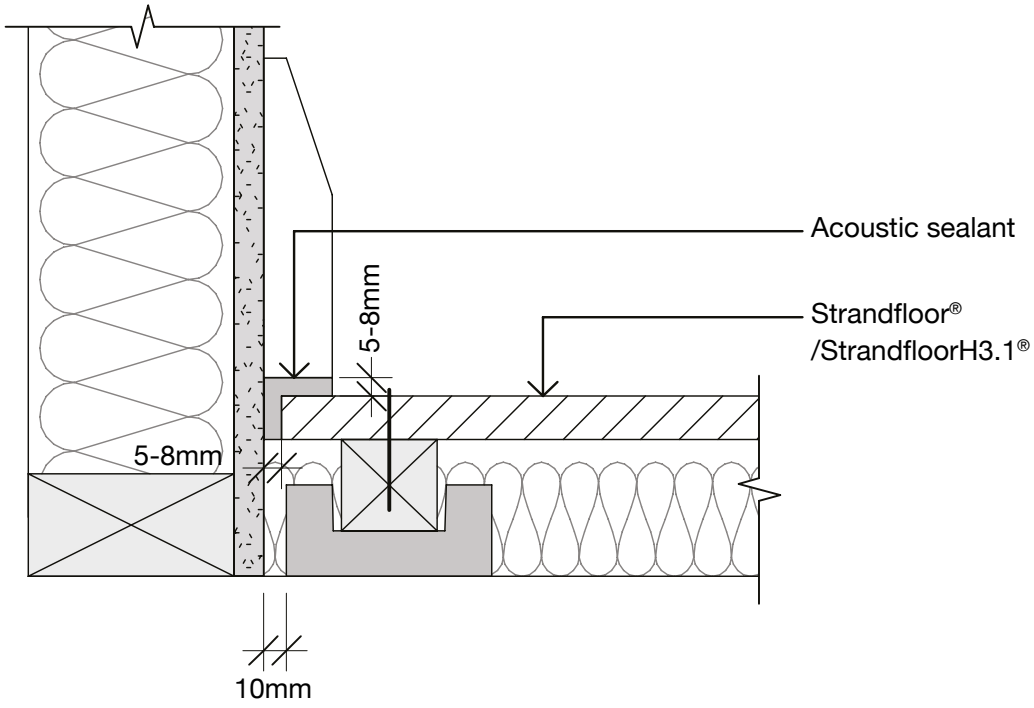
Additional Components - (Acoustic Systems Only)

Batten & Cradle™ Acoustic Insulation

If specified, lay acoustic insulation between the Cradles over the entire floor area. The edges of insulation should be turned up at the perimeter walls. The same method will apply if thermal insulation is being used on a ground floor application.

The Batten & Cradle™ System



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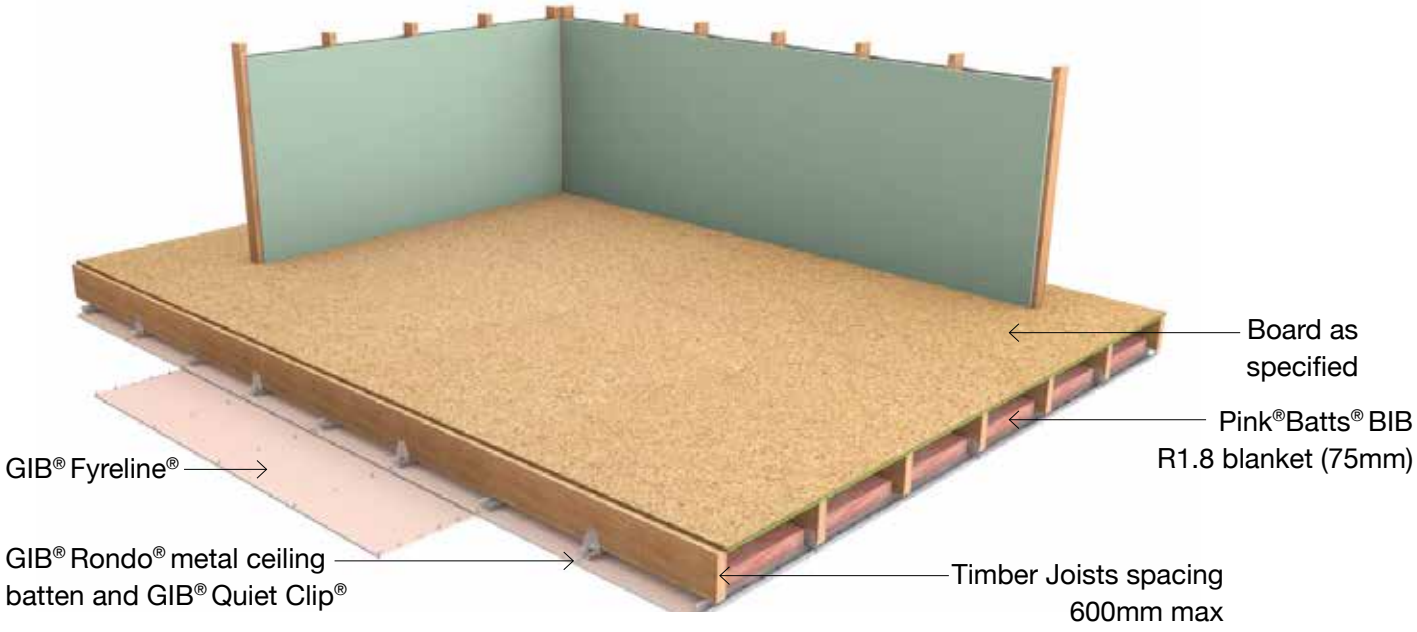
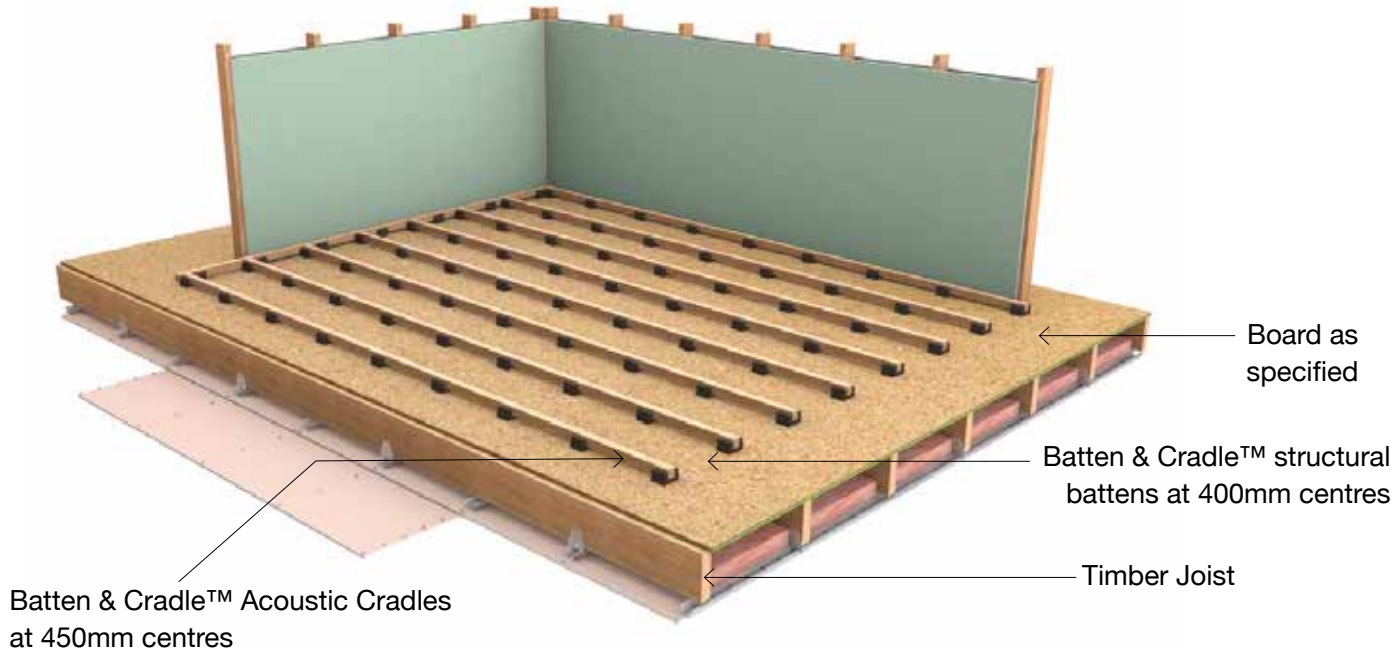
Strandfloor® Joist Layer Installation



Batten & Cradle™ Flooring System set up



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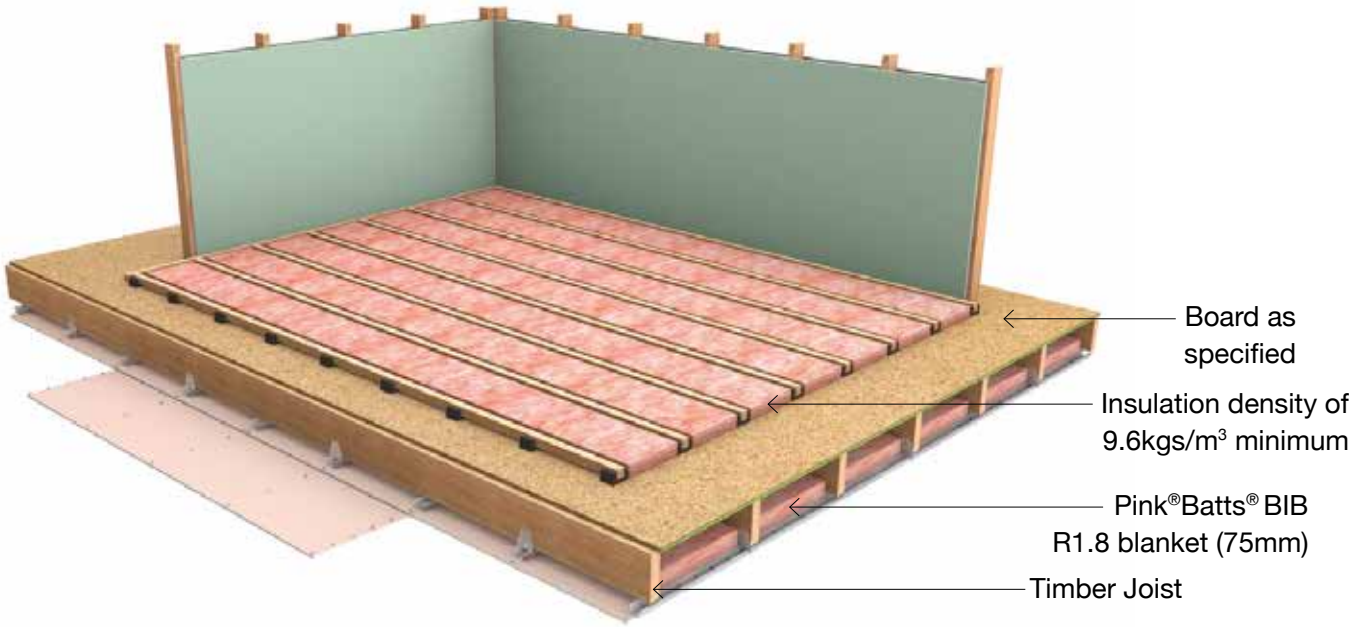
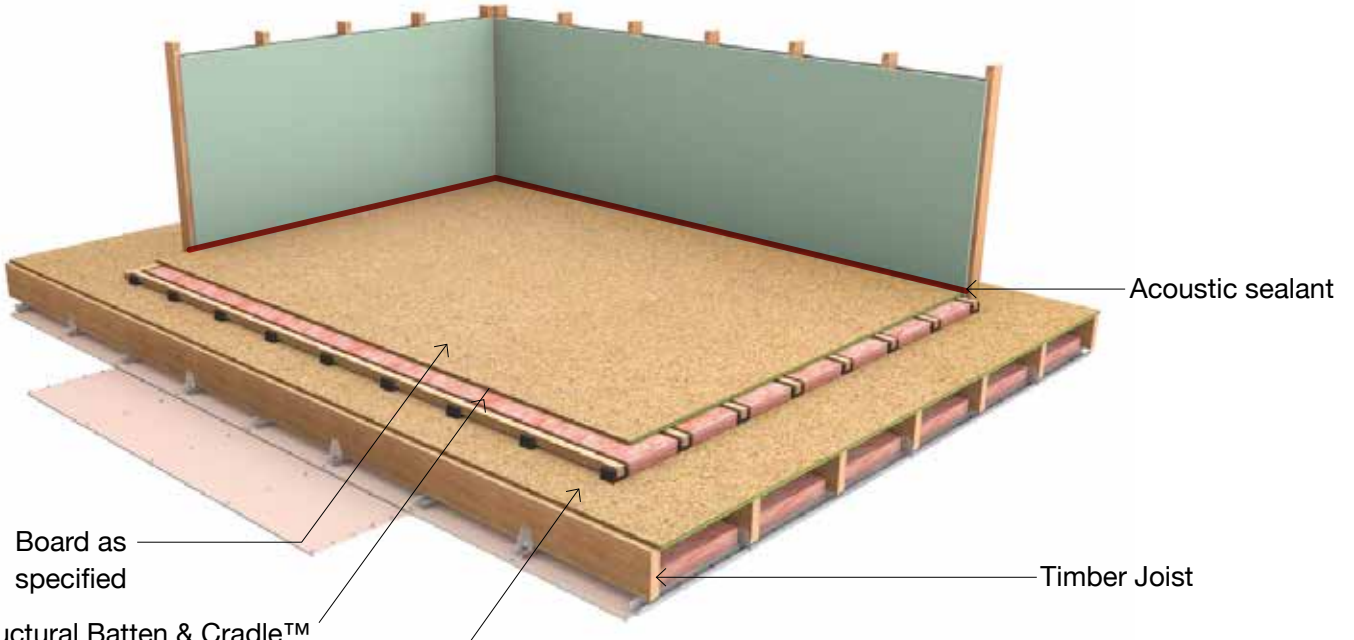
Insulation, density of 9.6kgs /m³ minimum



Strandfloor® second layer installation



Structural Batten & Cradle™ insulation 3.7 kg/m²

Strandfloor® / StrandfloorH3.1®13.6 kg/m²

Total 30.9 kg/m²

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