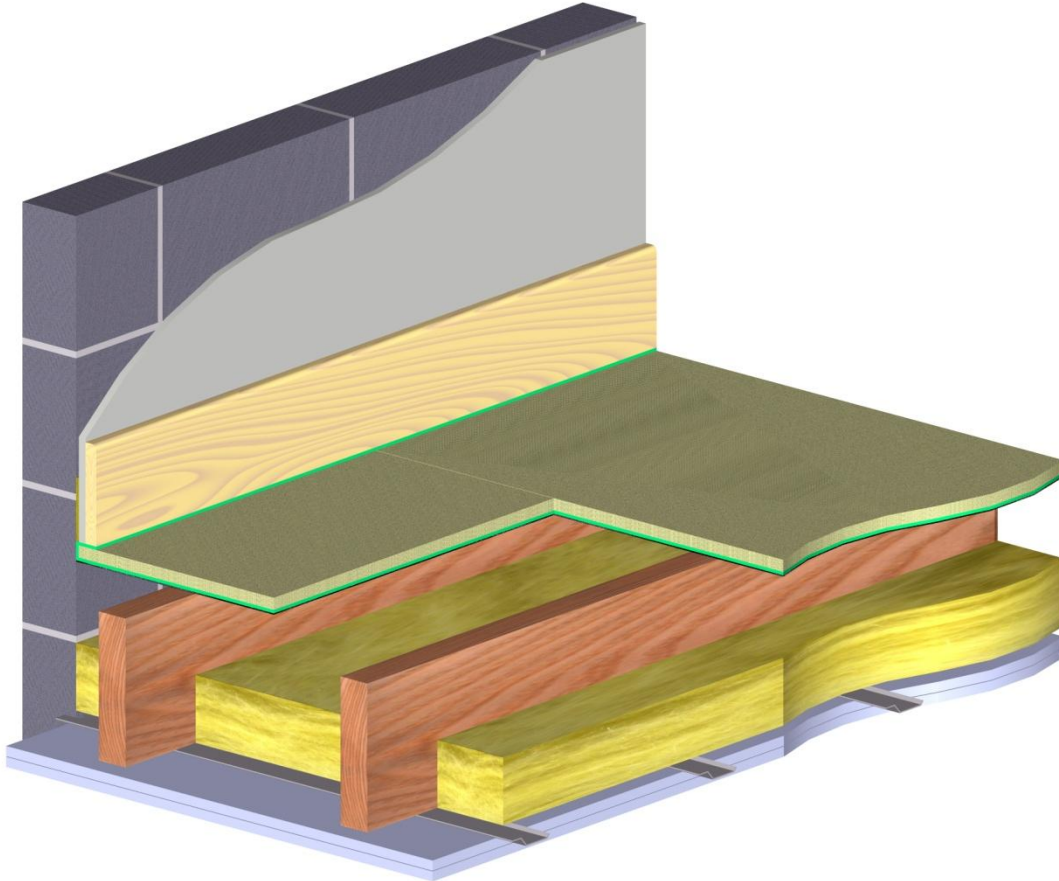


## Technical Installation Guide Number 12

# A-cousti Direct Solution

### Application

The A-Cousti Direct Solution is designed to be installed directly onto joists in New and Refurbishment projects to reduce sound transmission through floors. When specified as part of a complete build solution it enables a timber floor to meet the requirements of Part E of the building regulations.



### Description and Specification

A-Cousti Direct is 6mm A-coustifloor laminated to 22mm P5 moisture resistant tongue and groove chipboard.

Thickness	28mm
Board size	2400mm X 600mm
Board weight	25kg
Weight/m <sup>2</sup>	17.28kg

### Performance

Independent tests in the BRE gave performance figures for Airborne Sound of 63(-10) dB Rw +Ctr and for Impact sound 55 dB Lnw.

This system has been rigorously tested on site and achieved typical performance of 52dB Dntw + Ctr for airborne sound and 55 dB Lntw for impact sound.

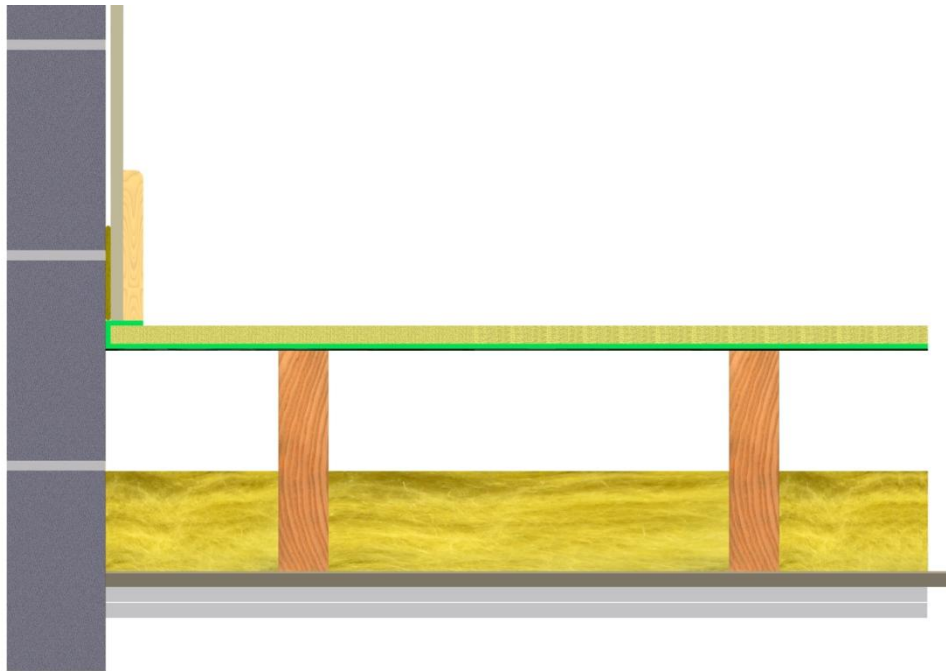
### Safedek All-Weather Option

A-Cousti Direct has one huge advantage over direct to joist products based on open cell foams in that when supplied with the **Sonae Safedek** option the boards can be laid prior to the finishing of the roof and windows and whilst the building is still open to the weather. This allows construction staff to work safely off a fixed floor with a safety surface in all weather conditions and in turn this allows a shorter lead time to building completion

### Technical Installation Guide

- Ensure you are following safe working practice as required by the HASAWA 1974 and as amended by local rules
- Boards should be laid with the long axis perpendicular to joists at 400mm or 600mm (max) centres to ensure that joints between boards fall on a joist, in a staggered pattern.
- The boards must not be screwed or nailed to the joists, but the tongue and groove joints glued with a suitable adhesive and allowed 24 hours curing time. This creates a floating floor decoupled from the structure of the floor
- The floor must be decoupled from the perimeter wall by using an A-Cousti Ecostrip flanking band. It is recommended that the lower part of the flanking band is tacked in position with spray adhesive whilst the boards are fitted, particularly along the perimeter walls parallel to the joists.
- Once the boards are fitted and glued, the flanking band should be turned over the top of the A-Cousti Direct board and trapped below the skirting to form a completely isolated floating floor. Any excess flanking band is trimmed off in line with the skirting and a bead of A-Cousti Fix and Seal run along the skirting to finish

### Building Internal Partitions (non load bearing) off E-Cousti Direct



Internal partitions as defined by Approved Document E should be built off an A-Cousti Direct platform where it is part of a separating floor structure in order to reduce the risk of flanking sound being carried through the joists to the ceiling below. Check with the architect/structural engineer to determine if the floor needs support joists or noggings for the partition to be built.

Timber or metal stud section may be used, but it is essential that the fixings to the sole plate do not penetrate the resilient layer of the A-Cousti Direct. Where the ceiling/floor above is a separating element and uses resilient bars running through over the line of the partition a resilient bar nogging should be used.

The resilient bar nogging is formed where the partition is running parallel to the ceiling joists by fixing noggings at 1200mm centres between the joists and protruding below by the depth of the resilient bars, and where the partition runs perpendicular to the direction of the joists a batten equal to the depth of the resilient bar is fitted across the joists.

The purpose of the resilient bar nogging is to prevent the bar being compressed and its function impaired.

### Downlighters

Where a metal frame ceiling is used with A-Coustiquilt laid over the top it is recommended that only fire protected and acoustic rated products are fitted. Always fit as per the manufacturer's instructions, but in addition where A-Coustiquilt (or any other mineral fibre product) is fitted in the ceiling system ensure there is sufficient airflow around the downlighters. This is achieved by cutting away a hole in the A-Coustiquilt of 60mm greater diameter than the downlighter diameter.

In order to accurately locate the holes measure up the position of the hole using the grid of the metal frame as the reference point to establish the co-ordinates for each hole. There should be a minimum of 30mm clearance between the downlighter and the quilt in all directions.

When using proper acoustic rated downlighters there will be no reduction in the acoustic performance of the system. However, downlighters do create an obvious flanking path if not correctly fitted with adequate care.

Update April 2010