

SoundDeck CLD System



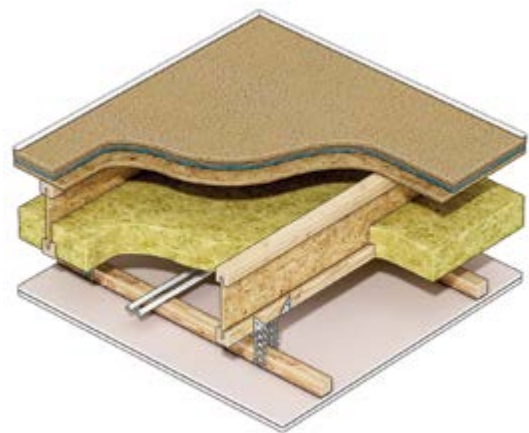
A fast track acoustic floor
and ceiling system

The SoundDeck CLD System

PCT Acoustic Solution for new build timber frame apartment floors and ceilings

The SoundDeck CLD System comprises a timber based, high performance overlay board and an innovative acoustic ceiling hanger to provide exceptional acoustic performance in new build joisted floors.

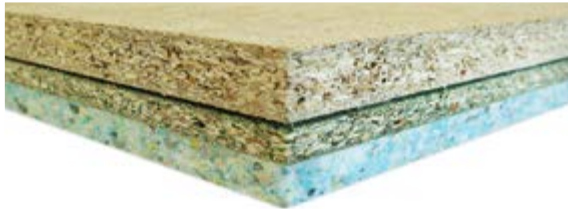
The system has exceeded the requirements of the Building Regulations Part E (England and Wales) and Section 5 (Scotland) and can achieve up to 3 Code credits on a PCT basis. The single layer acoustic floor uses proven damping technology, is solid underfoot and fast to install. Made from timber products it is sustainable and avoids issues associated with dust generated by cutting alternative dry screed board solutions. SoundDeck Acoustic Hangers provide an acoustic ceiling with an integral void for services, avoiding the need for both resilient bars and a sacrificial ceiling.



Main system components

SoundDeck CLD Boards

SoundDeck CLD boards consist of two separate layers of moisture resistant chipboard isolated but bonded together by visco-elastic sound damping strips with a resilient foam layer on the underside. The boards are 2400mm x 600mm x 36mm and are tongued and grooved on four edges. The patented Constrained Layer Damping technology damps vibrations and attenuates impact and airborne noise passing through the floor.



SoundDeck Acoustic Hangers

SoundDeck Hangers are manufactured from galvanised steel and are profiled and shaped in such a way that sound waves are weakened in their transit through the component. Carefully positioned slots prevent a direct transmission path. The hanger system provides a void for services and is cheaper and faster to install than a resilient bar system with a sacrificial MF ceiling. If no service void is required a standard resilient bar can be used instead.



Benefits SoundDeck CLD Boards

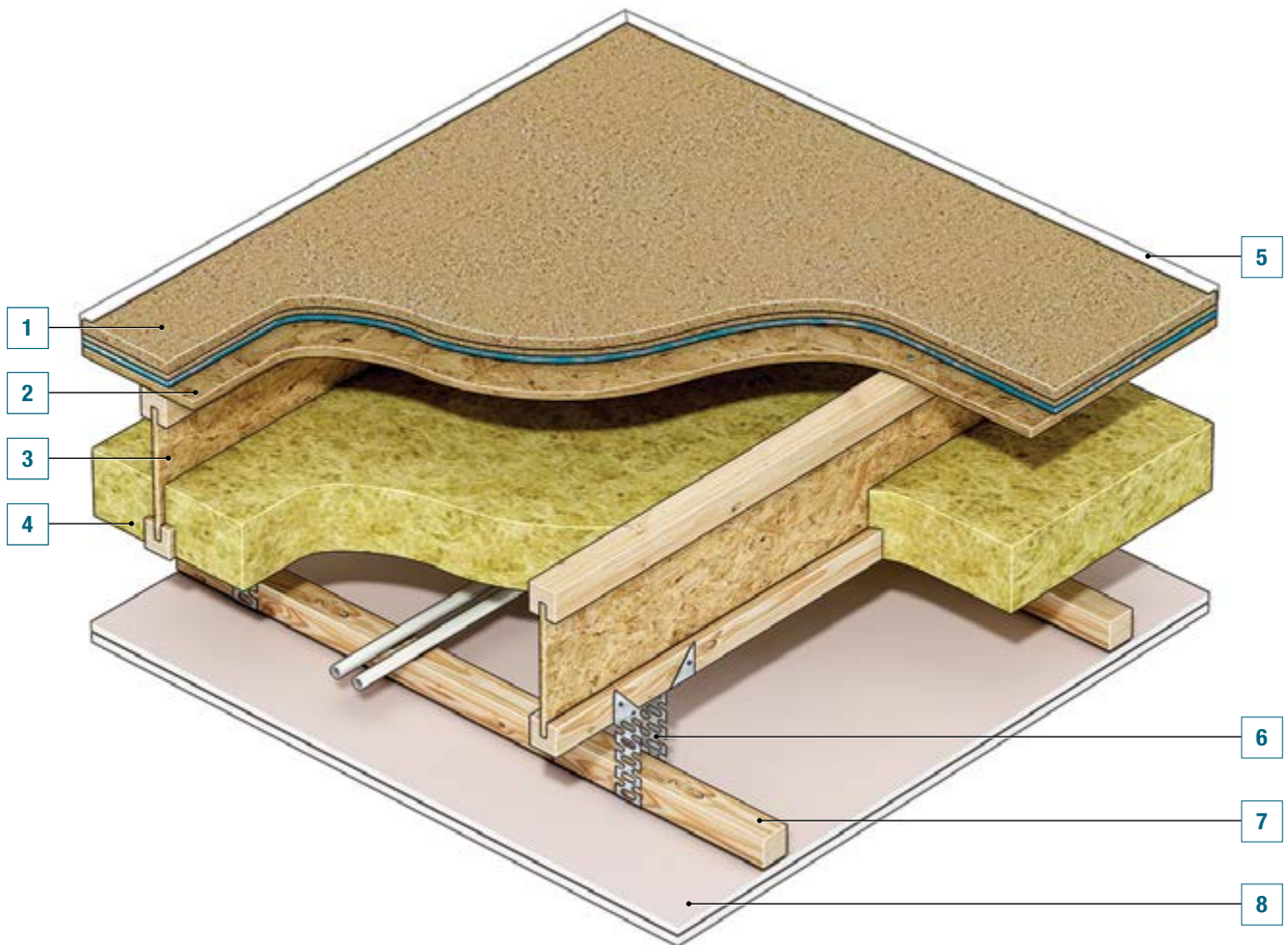
- Proven Constrained Layer Damping technology
- Superior acoustic performance
- Up to 3 Code credits on a PCT basis
- Solid, one component floor only 36mm high
- Fast, simple installation using normal joinery tools
- Avoids cementitious dust of dry screed products
- Lightweight board (20.5kg / m²)
- Shallow overall floor and ceiling construction
- No rip liners needed
- Uses standard D3 adhesive with no screws
- All components recycled or recyclable
- GWP of recycled resilient layer is zero

Benefits SoundDeck Acoustic Hangers

- Quick fit acoustic hanger provides integral service zone
- Avoids costs of secondary ceiling system
- Fewer components per m²
- Assessed by Exova Warrington fire to provide 60 minute fire performance
- Eliminates risk of acoustically bridging resilient bars
- Services run in the ceiling void providing easier access for maintenance
- 100mm or 150mm deep hanger available

Typical detail

Timber I Joists with SoundDeck CLD board and SoundDeck Acoustic Hangers

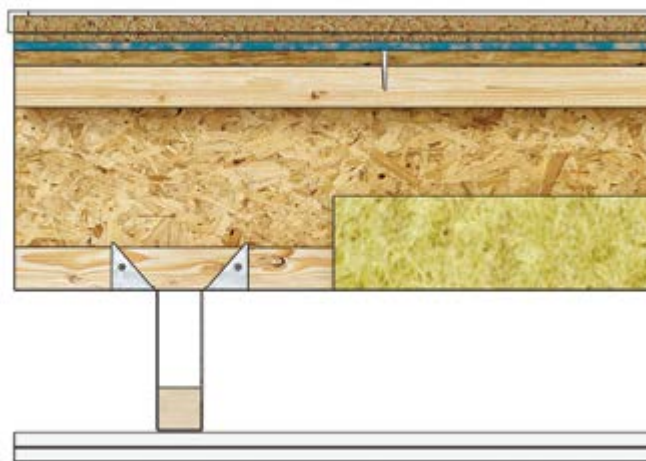


- 1 Floating Floor Treatment**
SoundDeck CLD Board 36mm thick.
- 2 Floor Decking**
15mm thick (minimum) timber deck.
- 3 Floor Joists**
235mm (minimum) timber I joists.
- 4 Absorbent material between joists**
100mm (minimum) mineral wool quilt (density 10-36 kg/m³).
- 5 Perimeter Flanking Strip**
CMS Danskin Acoustics 'L' shaped flanking strip to perimeter.

- 6 Ceiling Hangers**
SoundDeck Acoustic Hangers fixed at 600mm centres along I joists (and to within 150mm of perimeter walls) with 4 No. 3.5mm x 35mm woodscrews (to BS 1202-1:2002) per hanger.
- 7 Ceiling Battens**
45mm x 45mm C16 softwood timber battens screwed to hangers with 3.5mm x 35mm woodscrews. SoundDeck Acoustic Hangers can be spaced up to 1200mm apart along the length of the ceiling battens.
- 8 Ceiling Lining**
Two layers of 15mm fire resistant glass reinforced plasterboard with minimum density of 12kg/m² per layer.

Typical hanger arrangement

Timber I Joists with SoundDeck CLD board and SoundDeck Acoustic Hangers



Accessories

The following accessories are required for the successful installation of the SoundDeck CLD system:

SoundDeck Ceiling Battens

C16 softwood ceiling battens are screwed into the SoundDeck Acoustic Hanger with 3.5mm x 35mm woodscrews to BS 1202-1:2002. The ceiling battens are 45 x 45 x 2400mm for ease of handling and are PEFC Certified as standard.

'L' shaped Flanking Strip

6mm thick preformed 'L' shaped acoustic foam supplied in strips 1.8m long packed in bags containing 100 linear metres. The strip prevents contact between the floating floor and the perimeter. It is lightly trapped between the bottom of the skirting and the top of the floating floor with the excess neatly trimmed off.

D3 Adhesive

D3 adhesive is a high quality, resin based wood adhesive which provides a high strength impact resistant bond. It conforms to the international standard EN 204 (D3) for creep resistance and is supplied in 1 litre bottles.



Performance

The SoundDeck CLD System has been demonstrated to exceed the sound insulation requirements of Approved Document E of the Building Regulations and Scottish Section 5.

Required Performance	Impact Sound L'nT,w	Airborne Sound DnT,w + Ctr	Airborne Sound DnT,w
England & Wales (Approved Document E)	≤ 62dB	≥ 45dB	n/a
Scotland (Section 5)	≤ 56dB	n/a	≥ 56dB

Tested Performance	Impact Sound L'nT,w	Airborne Sound DnT,w + Ctr	Airborne Sound DnT,w
SoundDeck CLD with 150mm SoundDeck Hanger	53dB	52dB	60dB
SoundDeck CLD with Resilient Bar	52dB	50dB	58dB

CLD with SoundDeck hanger test ref: R-5775A-4-NR-CS CLD with Resilient Bar test ref: R5775A-11-NR-CS

Design considerations

Services

SoundDeck Acoustic Hangers are available in 100mm or 150mm depths. This provides clearance for services of around 50mm or 100mm between the top of the ceiling batten and the underside of the I joist. This zone can accommodate a variety of services such as electrical conduits or HVAC ducting.

Storage

Prior to installation all components should be kept inside, under cover and in dry conditions at all times. Panels should be stacked flat on a level surface. Materials should be located into the environment in which they are to be fixed at least 24 hours prior to fixing.

Subfloor preparation

The base floor must be flat and completely dried out. The floor should be swept clean and be clear of pipes and other obstacles.

Partitions

Lightweight non loadbearing partitions can be supported on top of SoundDeck CLD boards. Ensure that screws fixing into the boards do not penetrate more than 15mm or the acoustic performance may be impaired.

Thresholds

A solid timber batten should be placed across the main door threshold. Leave a 5mm expansion gap between the board and the timber.

Kitchen and bathroom items

It is permissible to install sanitary ware, baths, shower trays and kitchen units off the structural floor. Isolate these from the floating floor and any floor finish.

Expansion provision

Expansion provision should be calculated at a rate of 2mm per metre run. This may be provided in a gap at perimeter walls but intermediate expansion joints may be needed on long runs of flooring.

Acoustic hanger spacings

SoundDeck ceiling components should be installed within rooms after the wall linings have been fitted. Where two layers of 15mm fire resistant plasterboard are used SoundDeck ceiling battens can be spaced up to 600mm apart. SoundDeck Acoustic Hangers should be spaced at maximum 1200mm intervals along the length of the ceiling battens and the first and last hanger in each row should not be more than 150mm from the perimeter walls. Where two ceiling battens meet they should be supported by and fitted to a hanger. The ends of ceiling battens must not be in contact with the perimeter wall.

Wet components

Any components exposed to wet conditions such as ingress of water or plumbing leaks should be discarded and replaced.



Loading

SoundDeck CLD has been designed for use in areas with a maximum UDL of 1.5 kN/m² and a maximum concentrated load of 2 kN in accordance with BS EN 1991-1-1.

SoundDeck CLD is designed to deflect to absorb impact sound - therefore increased loading of the floating floor may cause some localised additional deflection. Items of extraordinary loading such as storage heaters, granite or marble worktops, heavy island units etc. may require support direct from the subfloor.

Tiling

Ceramic floor tiles should be laid on a flexible stress relieving membrane and fixed with flexible bedding compound and grout. When laying a natural stone finish e.g. marble, granite, limestone etc., seek professional advice. Lay in accordance with floor finish supplier's recommendations.

Guidance on downlighters

Where downlighters are to be installed in the ceiling:

- They should demonstrate compliance with the acoustic test detailed in Appendix F of the Robust Details Handbook.
- They should be installed in accordance with the manufacturer's instructions.
- There should be a maximum density of one light per 2m² unless testing to Appendix F supports a greater density.
- Centres should be not less than 0.75m.
- Openings should not exceed 100mm diameter or 100 x 100mm.
- They should be fire rated in accordance with clause 7 of BS 476-21:1987 demonstrating more than 60 minutes performance in a load bearing timber floor using I joists and two layers of 15mm fire resistant glass reinforced plasterboard.

A suitable range of accredited acoustic and fire rated downlighters is available. Contact your local CMS Danskin Acoustics for details.

Installation

To ensure correct installation of the floor the detailed fixing instructions must be followed carefully. Copies of these instructions should be obtained from the sales department.

For further information
please contact our technical/sales team

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1 Netherton Road, Wishaw, North Lanarkshire ML2 0EQ

Central/Southern - 01925 577711

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Patents


The SoundDeck CLD board and SoundDeck Acoustic Hanger are protected by Patent.

Delivery

The system is generally supplied on curtainsided vehicles ready for forklift unloading by site.

CMS Danskin Acoustics' employees or agents are not authorised to make any representations or give any advice or recommendations concerning any goods or services unless confirmed in writing.

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