

PRO)))SOUND™

ReductoClip System

Concrete Ceiling Installation
Guide & Product Overview

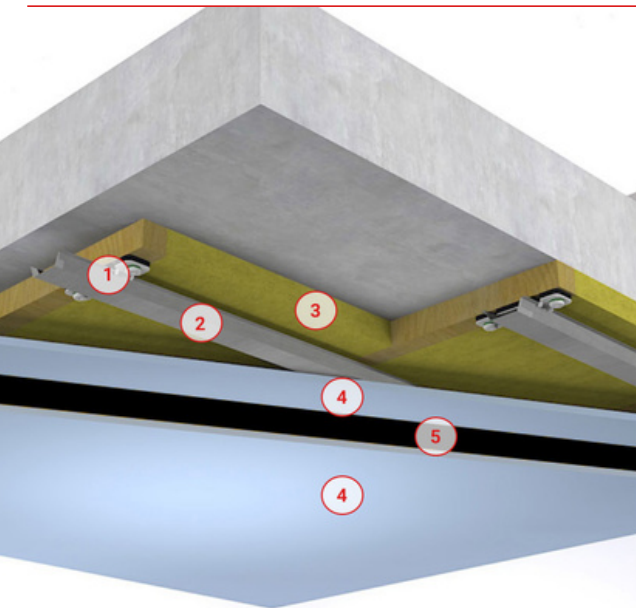
Overview

Tried, tested and proven to provide the highest level of sound reduction. The ReductoClip Concrete Ceiling System (with timber battens) is a slimline, highly effective ceiling soundproofing solution, engineered to enable you to achieve peace and quiet in your home. This system ticks all the necessary boxes, adding high levels of mass and resilience to dampen sound energy from the structure.



Why Use The ReductoClip Concrete Ceiling System

- **Highest level of sound reduction** - giving you peace, quiet and privacy in your own home
- **Slimmest system of its kind** - saving you space in your room
- **Straightforward DIY installation** - saving you time and money, without the need of extra labour costs
- **Fast delivery lead times** - 3 - 5 working days

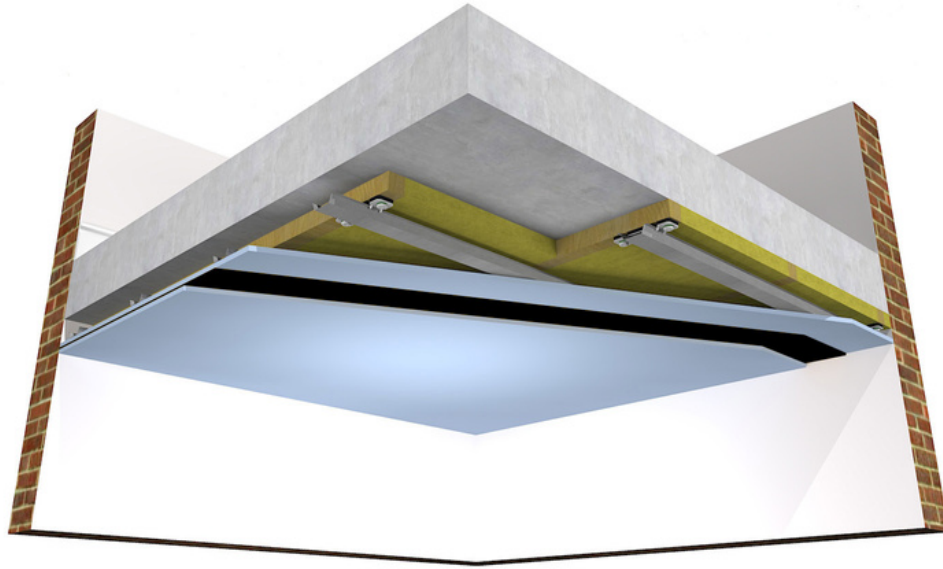


Features

Direct To Timber Batten Clip And Bar System (110mm Thick):

- 1. ReductoClips** - decouple the mass layers from the timber joists which act like a shock absorbing suspension system to dampen high levels of sound energy and vibration
- 2. ReductoClip Furring Channels** - extra wide to make fixing acoustic plasterboards quicker and easier
- 3. Acoustic Mineral Wool** - dampens sound within the cavity to stop sound amplifying
- 4. Acoustic Plasterboard** - (2 layers) to increase the mass of the ceiling. More mass and density than standard plasterboard but with the same finishing and decorating techniques
- 5. FlexiSound 5** - Anti-Vibration membrane to add further mass to the ceiling. A different type of mass to reduce different sound frequencies to the other layers. FlexiSound also helps to dampen sound energy and vibration
- 6. Timber Battens** - to support the mineral wool and give an improved fixing point for the ReductoClips

ProSound ReductoClip System Concrete Ceiling Performance



ReductoClip Concrete Ceiling (Performance on concrete ceiling)	Airborne Performance (Higher dB figure the better)	Impact Performance (Lower dB figure the better)
ReductoClip System fitted to timber battens onto concrete ceiling	74dB (DnT,w)	48dB (L'nT,w)
Untreated concrete ceiling performance * (Before ReductoClip Ceiling System)	59dB (DnT,w)	76dB (L'nT,w)

*200mm thick concrete slab

For more performance data and building regulation compliance please [**CLICK HERE**](#)

Performance Explained

Airborne sound improvement after ReductoClip System was fitted	15dB
Impact sound improvement after ReductoClip System was fitted	28dB

For context 10dB improvement is generally perceived by the human ear to being a halving of noise.

For further information on decibels [**CLICK HERE**](#)

Specification

Total thickness of system: 110mm

Weight: 35.7kg per m²

Thermal Conductivity:

- **Plasterboard 15mm:** 0.25 W/mK
- **FlexiSound 5:** 0.037 W/mK
- **60kg Acoustic Mineral Wool:** 0.034 W/mK

Thermal Resistance, (*R-Value*):

- **Plasterboard 15mm:** 0.060 m² K/W
- **FlexiSound 5:** 0.14 m² K/W
- **50mm 60kg Acoustic Mineral Wool:** 1.45 W/mK

Fire:

- **Plasterboard 15mm:** EN13501-1: A2-s1, d0
- **FlexiSound 5:** EN13501-1: C-s3 d0
- **60kg Acoustic Mineral Wool:** EN13501-1: A1

System Components

- Acoustic Mineral Wool
- ProSound ReductoClip
- ProSound ReductoClip Furring Channel
- 15mm Acoustic Plasterboard
- FlexiSound 5
- Acoustic Sealant - 900ml
- Jumbo Sealant Applicator Gun for 900ml tubes
- Plasterboard Scrim Tape - 90m
- Packers 28mm x 5mm (Pack of 25)
- ReductoClip Fixing Kit (pack of 100)
- ReductoClip Furring Channel Screws 50mm x 3.5mm (pack of 200)
- ReductoClip Furring Channel Screws 25mm x 3.5mm (pack of 200)

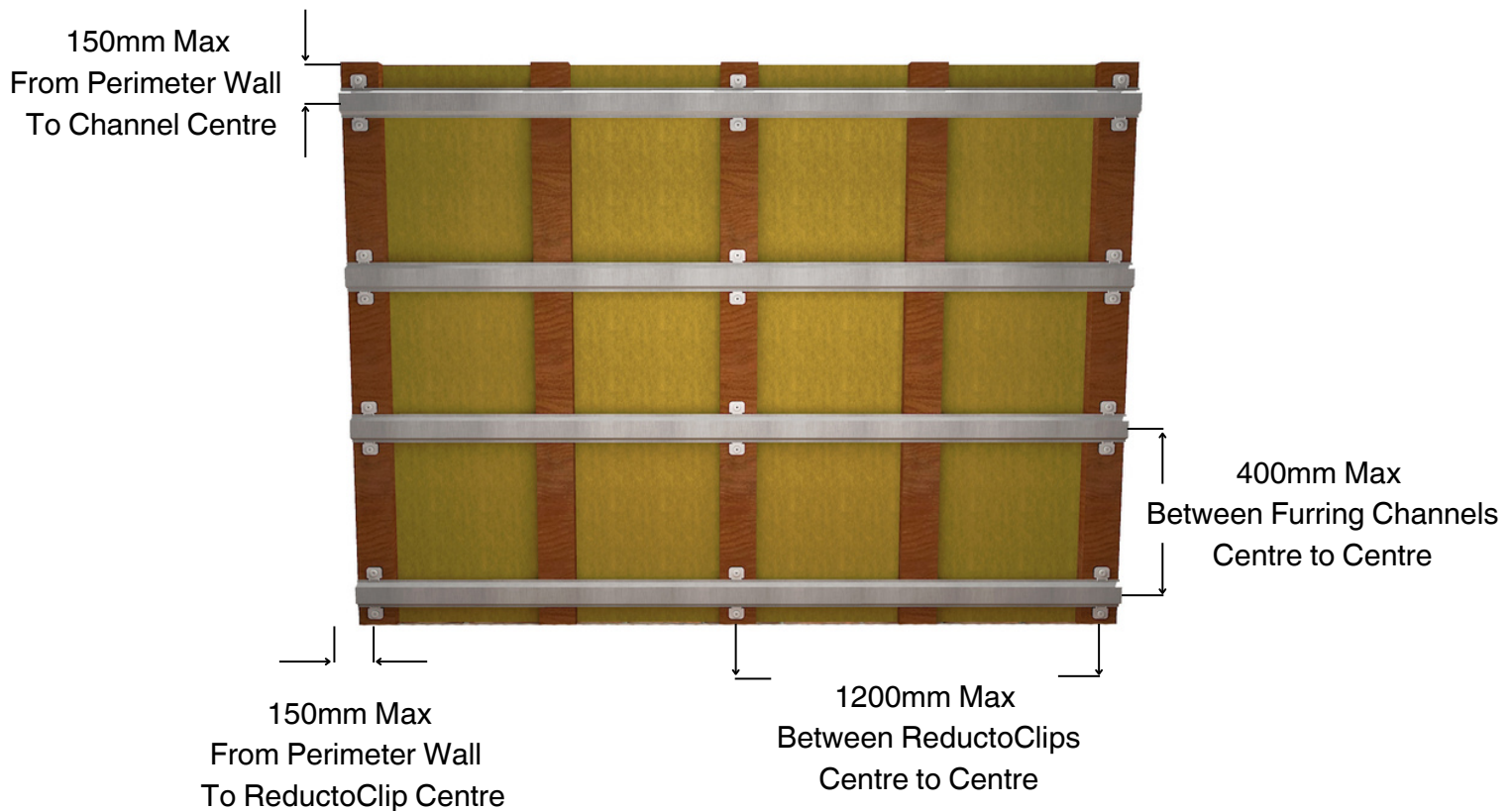
Please Note: These components are heavy and we recommend two people for installation

ReductoClip Positioning Diagram

The below diagram illustrates the max spacings that can be used between ReductoClips and furring channels.

ReductoClips at the end of each row of furring channels should be fitted at a maximum of 150mm away from the perimeter walls with the furring channel going up to the wall (still 5mm off)

ReductoClips should be fitted to allow ReductoClip Furring Channels to run a maximum of 150mm from the perimeter to the centre of the channel running perpendicular to the ceiling joists.



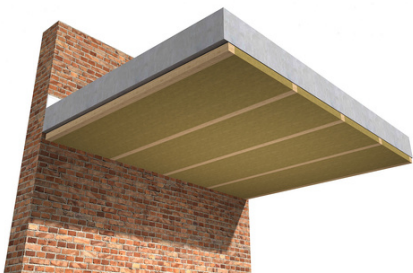
Make sure to overlap furring channels by 150mm and securing with 4 self tapping screws. Make sure overlaps occur between the ReductoClips, not on the ReductoClips.

Installation Instructions

The below installation instructions are for when fitting the ReductoClip System directly to **timber battens on a concrete ceiling**.

1. Remove any fixings and coving.

Dot and dab plasterboard on any walls should be removed and cut away from the ceiling by 115mm.

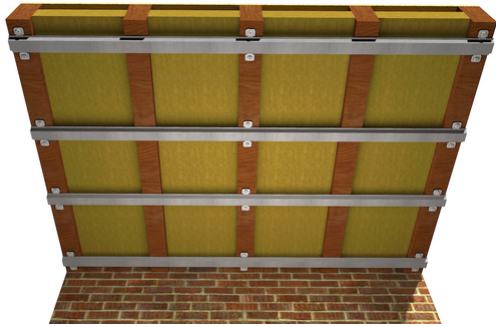


2. Fix the 50mm timber battens directly to the concrete ceiling using suitable fixings (not supplied) at **600mm centres**. Fix the first and last battens up to but not touching the side walls (leave a 5mm gap).

3. Install Acoustic Mineral Wool between timber battens.

If the battens are installed at 600mm centres, mineral wool slabs should be slightly compressed either side and friction fit into the space between battens. No fixing required.





4. Fix the ReductoClips on the bottom of the timber battens in the appropriate positions.

See diagram on Page 5

Tighten fixings until they come into solid contact with the top washer on the ReductoClip. Do not over tighten.

Maximum space between clips 1200mm.

Maximum space between furring channels 400mm.

5. Snap the ReductoClip furring channel into the ReductoClip by squeezing the furring. **IMPORTANT: Make sure to overlap channels by 150mm and secure with 4 self tapping screws (not supplied). Make sure overlaps occur between the clips, not on the clips. Ensure furring channels are overlapped alternatively, front to back and so on.**

Tip: To utilise the furring channel quantities, and ensure joins occur between clips, cut a 600mm length bar and start with this bar. Then start the second row with the offcut.



6. Before installing the first plasterboard layer, mark the locations of the furring channels on the surrounding walls in chalk or pencil. This will help you to locate the position of the furring channels later once the first layer of plasterboard is on and furring channels are no longer visible.

7. Install the first layer of 15mm acoustic plasterboard. Starting in one corner, offer your first board to the ceiling making sure it sits square leaving a **5mm gap around the perimeter edge of the ceiling**. You may need to scribe the boards to follow the curvature of your surrounding walls to maintain the 5mm gap. Use 5mm packers to isolate the board from surrounding surfaces.

Tip: We recommend using a plasterboard lifter as the materials are very heavy.



8. While holding the acoustic plasterboard in position, use the 25mm self-drilling screws to secure the board into each ReductoClip furring channel. Screw the fixing in place until the screw head is flush with the plasterboard. A screw should be used every 200mm on each furring channel. Once the first plasterboard is in position, apply the next board butting up tightly to the previous board and continue.

It is best practice to apply Acoustic Sealant around the perimeter and over all joins in the boards.



9. Install FlexiSound 5. FlexiSound is self-adhesive and requires no fixings or secondary adhesive. Lay plasterboard for the second layer flat on the floor. Stick FlexiSound to the back (brown side) of the plasterboard, making sure to cover the entire board.





10. Install the second layer of 15mm acoustic plasterboard (with FlexiSound attached). Lift the board up to the ceiling and fix in position using the 50mm self-drilling screws, sandwiching the FlexiSound between the two plasterboards. Stagger the joins by starting at the opposite side from where you started on the first layer. Remember to leave a 5mm gap around the perimeter. A screw should be used every 200mm on each furring channel.

11. Fill the gaps around the perimeter with acoustic sealant. It is best practice to apply sealant over all joins in the boards too. Use a putty knife to smooth off.



12. The ReductoClip Ceiling System is then ready for standard plasterboard finishing. A plaster skim finish is most common but heavy duty backing paper can also be used.

ReductoClip Direct to Concrete Ceiling

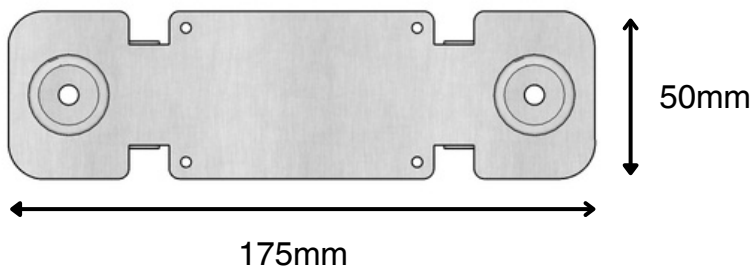
We recommend installing 50mm timber battens to the concrete ceiling first. This allows you to add 50mm Acoustic Mineral Wool in between the battens and gives the ReductoClips a better fixing into timber. However, if you wish to fix the ReductoClip system directly to your concrete ceiling then you will need to use Contact Spray Adhesive to adhere 25mm Acoustic Mineral Wool directly to the concrete in between the Furring Channel spacings.

Continue to Step 4 using suitable fixings into concrete

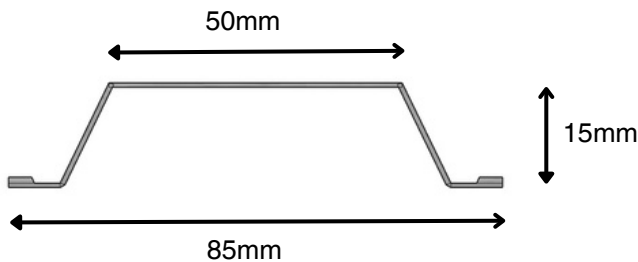
Light Fixings

We recommend using surface mounted lights or single pendant type lighting. This is to minimise the amount of holes you are creating through the mass layers of the soundproofing.

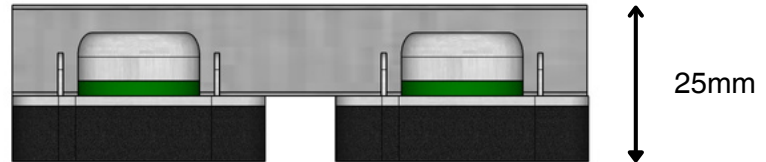
ReductoClip Dimensions



Furring Channel Dimensions



ReductoClip & Furring Channel Combined Dimensions



Additional Fixing information

The hole in the ReductoClip has a diameter of 7.5mm for your fixing to go through

Use fasteners that will have a minimum of 120lbs pull out or sheer strength in the wood, steel or concrete substrate.

- **Self tapping screws:** For furring channel joins (approx. 10 – 15mm)

*If your self tapping screws are struggling to pierce the furring bar, use a pilot hole beforehand

Important Notes

- If you are employing fitters, please do not schedule or start any installation work until you have received your order
 - Delivery will be on a pallet and will be wheeled as close to your property as possible. (Unfortunately our haulier cannot take the goods into your property)
 - Please note that our products have a great deal of mass, and will add weight to your structure. You may need to check with a structural engineer to ensure compatibility
 - Due to the weight of the materials, they will require two people to carry them indoors
 - For installations and applications not listed, please contact The Soundproofing Store for guidance
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ReductoClip Specification

Maximum design Load: 3kg - 25kg per ReductoClip for optimum performance

Resonance Frequency: 7 - 15Hz

PRO)))SOUND™

ReductoClip System

Exclusively available through The Soundproofing Store