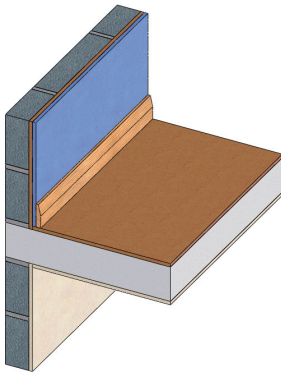


TECHNICAL INSTALLATION GUIDE FOR KARMA ACOUSTIC EASYPANEL FOR PRE-COMPLETION TESTING OF CONCRETE SEPARATING FLOORS

There are two options to achieve noise reduction through floors using Karma Acoustic EasyPanel sound insulation. Karma Acoustic EasyPanel is excellent at reducing both airborne and impact sound through floors. Select the best floor solution to suit your requirements. If you are attaching Karma Acoustic EasyPanel to the walls also, then the floor should be upgraded first.



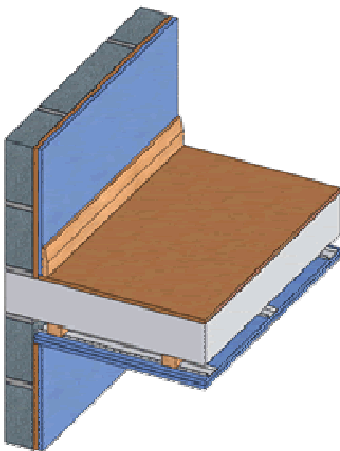
Option 1: Floating Floor Solution - 15mm Thickness

Application: Best slimline performance, with absolute minimal loss of living space for new or existing separating concrete floors. Popular choice to reduce both airborne and impact sound.

Construction: New or Existing, Concrete Floor

- Concrete Floor
- 15mm Karma Acoustic EasyPanel Insulation
- Floor Covering of Choice

See Page 2 for the Materials List & Installation Instructions



Option 2: Floating Floor Solution (15mm Thickness Above) with Decoupled Ceiling Below (52.5 - 79mm Thickness)

Application: Highest performance, with minimal loss of living space for new or existing separating concrete floors.

Construction: New or Existing Concrete Floor

- Concrete Floor
- 15mm Karma Acoustic EasyPanel Insulation
- Floor Covering of Choice

Ceiling Below

- Ceiling with / without existing plasterboard
- Timber Battens – 48x48mm or 24x48mm
- 16mm Resilient Bars
- 12.5mm or 15mm sound resistant (acoustic) plasterboard (optional second layer of plasterboard)

See Page 4 for the Materials List & Installation Instructions

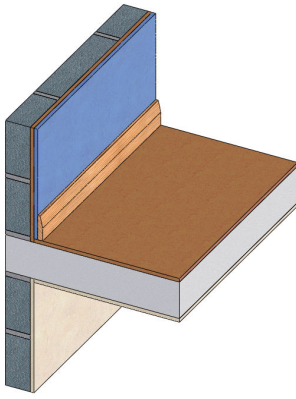
General Information:

1. The entire floor and ceiling structure is responsible for the direct transmission of sound through the separating floor. For floor treatment, Karma Acoustic EasyPanel is the floating resilient layer which has exceptional Airborne and Impact sound reduction values. However, if care and attention to detail are not carried out to a high standard, the overall performance will be affected. **It is the fitter's responsibility to ensure all materials are safely and securely held.**

2. Flanking walls (walls connected to the separating floor) can carry both Airborne and Impact sounds to the room above or below so it is therefore imperative that no additional **hard finishing surface** touches against these surrounding walls. For additional acoustic treatment of flanking and separating walls, see our fitting instructions for Soundproofing Walls. However, it is imperative that Karma Acoustic EasyPanel sound insulation board is butted up tightly to surrounding walls.

3. Where a wet trade is following the fitting of exposed Karma Acoustic EasyPanel, a temporary, peel clean, protective surface should be laid.

Option 1: Floating Floor Solution - 15mm Thickness - For New or Existing Concrete Separating Floors



Application: Best slimline performance with absolute minimal loss of living space, for new or existing concrete or solid floors. Very quick and easy to fit and it does not interfere with door thresholds. Any floor covering can be laid over Karma Acoustic EasyPanel. Popular choice to reduce both airborne and impact sound.

Materials List

- Damp Proof Membrane (if required)
- Karma Acoustic EasyPanel Insulation (1200 x 800 x 15mm)
- Karma Acoustic EasyTape (50M x 50mm)
- Flexible Sealant
- Floor Covering of Choice

Installation Instructions - (Read all steps before fitting)

1. A solid floor may need treating with an appropriate damp proof membrane (DPM) to prevent moisture content rising into the finished floor surface. Consult the finishing floor manufacturer's instructions for maximum acceptable moisture content. Many manufacturers require this to be used to validate the warranty.
2. **New Build:** If it is preferable to finish installing wall boards first before fitting Karma Acoustic EasyPanel on the floor, then this is possible by using 15mm thick packing pieces (e.g. 15mm Karma Acoustic EasyPanel or 15mm plasterboard offcuts) to ensure the wall board finishes 15mm above the sub-deck. The Karma Acoustic EasyPanel floating floor can then be slotted into this gap. Wall boards may be seated directly on top of Karma Acoustic EasyPanel, if fitted afterwards.
3. In **refurbishment situations**, ideally remove the skirting board and fit Karma Acoustic EasyPanel so that it is butted tightly to the perimeter walling boards, otherwise fit butted to the skirting. When refitting skirting, leave a 2-3mm gap between bottom of skirting and new floor surface, to avoid vibration. This gap can be filled with flexible sealant.
4. The surface of the raw floor must be clean, dry and sufficiently level, with no air paths through it. . If required, any unevenness can be levelled out with sand, although Karma Acoustic EasyPanel does have minor correction capabilities.
5. Caulk between the perimeter of the sub-deck and the surrounding walls with flexible sealant.
6. Karma Acoustic EasyPanel insulation boards are laid down with the label side facing up, floating on the sub-deck floor. They should not be nailed, screwed or bonded to the floor. The boards should be laid down tightly butted together in a brickwork pattern, and fitted tightly up to the perimeter walls. It is best to **lightly tap** each board in both directions with a light hammer using a 2" x 1" small batten as protection, being careful not to cause a lip. In wet rooms do **not** adopt this technique – simply lay the boards touching as described in 'Fitting Karma Acoustic EasyPanel in Wet Rooms'. There should be **no gaps at perimeter or between boards. Remember, sound will pass through any gaps.** If there are any little gaps fill them with flexible sealant.
7. No flanking strips are required to isolate Karma Acoustic EasyPanel from the walls. However if the installer has opted to add a harder more traditional floating surface on top of Karma Acoustic EasyPanel, e.g. plyboard, then this surface will need isolating from the perimeter walls with a flanking strip. If it eases installation to isolate both Karma Acoustic EasyPanel and the harder surface together, then this is acceptable.
8. Where Karma Acoustic EasyPanel must be cut, **it is important to cut with the board laid horizontally across 2 tables or trellises to minimise sand spillage, then orient the board vertically to seal the cut edges with the supplied Karma Acoustic EasyTape. If too much sand filler is lost the final performance may be compromised.** It is best to cut Karma Acoustic EasyPanel with a fine tooth handsaw or jigsaw. See Page 5 for more details on cutting and taping the Karma Acoustic EasyPanel boards. Where it is impractical to obtain a good fit at corners, scribe and cut as close as possible then caulk any remaining gaps with flexible sealant.
9. Check the entire floor surface is covered in Karma Acoustic EasyPanel and fitted to good workmanship standards making sure all joints are tightly fitted and that no gaps remain.
10. Where the developer has opted for a traditional 18mm to 22mm tongue & groove overlay over Karma Acoustic EasyPanel, then all flooring finishes are laid in the conventional way, and the following instructions are irrelevant. Otherwise see Page 3 for instructions to lay various floor coverings directly over Karma Acoustic EasyPanel.
11. **Skirting Boards:** Ensure that you leave a 2-3mm gap between the new floor surface and the bottom of the skirting board to eliminate the possibility of flanking noise between the walls and the floor. This space can be filled with flexible sealant.

Fitting Floor Coverings over Karma Acoustic EasyPanel



Fitting Solid Wood, Engineered Wood, Parquet & Laminate Floors Directly over Karma Acoustic EasyPanel

1. Wood flooring must be acclimatised in the fitting location prior to fitting for the length of time specified by the flooring manufacturer. This prevents shrinkage, cupping and warping at a later date.
2. Prior to installation, the installer has the final responsibility to inspect the finished flooring as to grade, manufacture and factory finish. The installer must use reasonable selectivity and discard or cut off pieces with deficiencies.
3. It is imperative that the expansion gap is carefully adhered to, as this is also necessary to prevent the transmission of sound from the wood flooring to the adjoining walls which in turn would transmit flanking noise. This gap is usually 6mm (12mm when floating) around all vertical objects and the whole perimeter of the room.

Mechanical fixing (usually 6mm expansion gap):

1. Solid wooden flooring cannot be nailed directly to Karma Acoustic EasyPanel or more importantly through to the sub-deck, which would cause a sound bridge. For 'Hidden Nail Technique' glue 9mm (minimum) plywood, OSB or chipboard on top of Karma Acoustic EasyPanel. Leave a **6mm gap between the wooden layer and the walls (and any other vertical structures) to reduce vibration and flanking noise.**
2. Then nail the timber flooring directly into 9mm top layer only, leaving expansion gaps as per manufacturer's instructions. Leave a **6mm gap between the flooring and the walls and any other vertical structures.** The gap at the perimeter can be sealed with flexible sealant.

Bonding (usually 6mm expansion gap):

1. If the installer requires the option of being able to remove the wood flooring in the future without damaging the Karma Acoustic EasyPanel layer, then a wooden overlay must be laid and bonded to Karma Acoustic EasyPanel - 3mm to 6mm thick plywood is common. It is important to leave a **6mm expansion gap around vertical objects and the whole perimeter of the room.**
2. For bonding wooden flooring, use the wooden flooring adhesive as recommended by the flooring manufacturer (usually rubberised wood flooring glue) which should be spread evenly on the floor with a medium notched trowel, as per the manufacturer's instructions.
3. Always check for an adequate adhesive bond before proceeding.

Floating (usually 12mm expansion gap, 6mm for Laminate):

1. Flooring suitable for fitting as a floating layer, as per manufacturer's guidance, (usually over 7mm thick), should be laid directly over Karma Acoustic EasyPanel without underlay for the best acoustic performance.
2. Joint Sealant for Laminate Flooring can be used to permanently protect Laminate from moisture effects, if necessary.

Fitting Ceramic Tiles Directly over Karma Acoustic EasyPanel

1. If floor height is not an issue it is recommended to lay a Tile Backing Board or a 6mm Marine (WBP) Plywood board over Karma Acoustic EasyPanel which is bonded to Karma Acoustic EasyPanel using a grab adhesive. This will protect the Karma Acoustic EasyPanel floor should you wish to change the tiles in the future. **It is imperative to leave a 5mm expansion gap between the tile backing board / plywood and any vertical objects, as well as the whole perimeter of the room, and fill the gap with a permanently flexible and waterproof sealant, to reduce flanking noise.**
2. If floor height is an issue, place a 100mm wide fibre glass mesh 'scrim tape' over all Karma Acoustic EasyPanel joints. Then lay the tiles in a thin bed of rapid setting flexible cement based tile adhesive, suitable for wooden floors. The scrim tape ensures no movement will take place due to vapour in bathrooms and kitchens. If tiling a **wet room**, please see the next section.

Fitting Ceramic Tiles Directly over Karma Acoustic EasyPanel in Wet Rooms

1. Karma Acoustic EasyPanel is moisture resistant and its performance will not deteriorate in these applications. Do not knock boards tightly together - simply lay lightly butted allowing for minimal expansion.
2. In high moisture areas it is important to lay a vapour barrier, or else it is recommended that a Tile Backing Board or a 6mm Marine (WBP) Plywood board should first be laid and bonded over Karma Acoustic EasyPanel using a grab adhesive. **It is imperative to leave a 5mm expansion gap between the tile backing board and any vertical objects, as well as the whole perimeter of the room, and fill the gap with a permanently flexible and waterproof sealant, to reduce flanking noise.**

Fitting Carpet Directly over Karma Acoustic EasyPanel

Carpets requiring an independent underlay:

1. Karma Acoustic EasyPanel is not an 'underlay'; a good quality carpet underlay is still required to protect the carpet and Karma Acoustic EasyPanel.
2. Carpet Grippers can be bonded to Karma Acoustic EasyPanel using a rapid set grab adhesive recommended for carpet grippers. The nails are hammered through the carpet, into the carpet gripper and then embed them in the Karma Acoustic EasyPanel - however **it is imperative that the nails do not pass through into the concrete floor below.** Common carpet gripper nails are insufficient length for this to occur, but it is the installer's responsibility to confirm this on site.

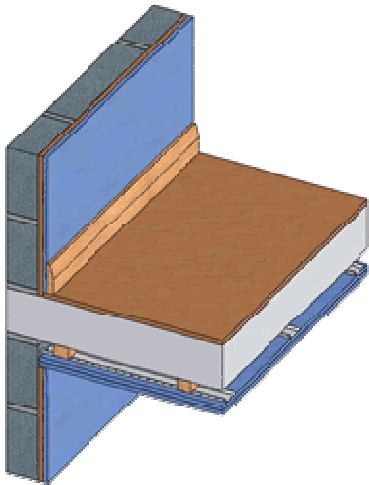
Carpets with a pre-bonded foam or felt underlay:

1. These carpets usually incorporate a thin foam or felt backing, insufficient to spread point pressure load and therefore require a 3mm to 6mm plywood bonded to Karma Acoustic EasyPanel prior to fitting the carpet.
2. The plywood is bonded to the Karma Acoustic EasyPanel leaving a 5mm expansion gap around all vertical objects and the whole perimeter of the room which can be filled with permanently flexible sealant.
3. Foam backed carpets should always have a brown building paper laid prior to fitting which prevents the foam from sticking to the floor when its glue seeps out.

Fitting Linoleum & Vinyl Directly over Karma Acoustic EasyPanel

1. Linoleum or Vinyl cannot be fitted directly on the surface of Karma Acoustic EasyPanel. For commercial applications use a hard Linoleum and Vinyl subfloor system floating over Karma Acoustic EasyPanel or 6mm plywood bonded to Karma Acoustic EasyPanel. For domestic applications, bond 3mm to 6mm plywood to Karma Acoustic EasyPanel.

Option 2: Floating Floor Solution (15mm Thickness Above) with Decoupled Ceiling Below (52.5 - 79mm Thickness) - For New or Existing Concrete Separating Floors

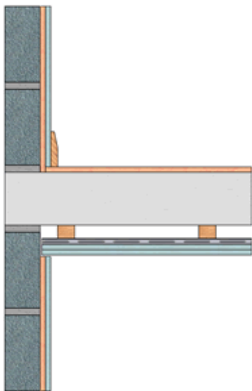


Application: Highest performance with minimal loss of space for a concrete floor and ceiling structure. This is a very effective soundproofing method if you have access to the floor and the ceiling below. This process uses timber battens and resilient bars which decouple the new ceiling below from the original ceiling, so enhances results significantly by reducing vibrations.

Materials List

- Damp Proof Membrane (if required)
- Karma Acoustic EasyPanel Insulation (1200 x 800 x 15mm)
- Karma Acoustic EasyPanel EasyTape (50M x 50mm)
- 24x48mm or 48x48mm Timber Stud Battens (highly recommended)
- **Optional** - 25mm or 50mm thick x 400mm wide - 45kg/m³ High Density Mineral Wool to suit batten size
- Resilient Bars (3M x 75mm x 16mm deep)
- 6mm diameter Hammer Fixings to secure timber battens to concrete ceiling
- Drywall Screws (25mm length)
- Sound Resistant (Acoustic) Plasterboard (2400mm x 1200mm x 12.5/15mm) (optional second layer of plasterboard)
- Flexible Sealant

Installation Instructions - (Read all steps before fitting)



1. Floor Above: Lay Karma Acoustic EasyPanel on the floor above, as per instructions on Page 2.

2. Ceiling Below: Remove the coving, if in position. It is not necessary to remove the plasterboard, if in place. Examine the ceiling thoroughly and if there are any holes or gaps, fill them with flexible sealant. If it is a bare concrete ceiling remove any loose material with a wire brush.

3. Secure the stud battens to the ceiling by screwing 6mm diameter hammer fixings through the batten, plasterboard (if in place) and into the concrete, so that they are safely and securely held. If using 24 x 48mm battens fix the wider side to the ceiling. Leave a **400mm space** between inner faces of the stud battens so that the width of mineral wool will be a push fit (if using). Do not allow the battens to quite touch any of the surrounding walls, as this may cause flanking noise.

4. Fix the Resilient Bars perpendicular to the battens by screwing 25mm (min) drywall screws through the pre-drilled holes into the timber battens only. **It is the fitter's responsibility to make sure that all these fixings are very safely and securely held, as they are supporting the new sound insulated ceiling.** Begin at one edge and place the first bar approx 50mm away from the wall. Continue on at **400mm centres**. You will need another bar close to the opposite edge of the ceiling but **not** touching the wall (regardless of the distance between the last 2 resilient bars). The last bar can be reversed to ease installation. Also do **not** allow the resilient bars to touch the adjoining walls – leave a 5mm gap. Cut the resilient bars with a tinsnips or hacksaw if necessary. If resilient bars need to be joined up, overlap 2 bars by 50mm max and screw through this overlap into a batten. This Resilient Bar process decouples the new sound insulated ceiling from the original floor/ceiling structure which reduces vibration, so enhances results significantly. Mark the position of the bars on the surrounding walls as a reference point.

5. Attach the acoustic plasterboard by screwing 25mm drywall screws through the plasterboard and in through the ridged part of the resilient bars, at 150mm centres. **It is very important to leave a 5mm perimeter gap around the edges, to stop vibrations with the surrounding walls.** Optionally add a second layer of plasterboard.

6. When finished installing plasterboard fill and tape all joints and screw heads.

7. Seal 5mm perimeter gaps with flexible sealant or caulking.

Cutting and Taping Guide

Site Conditions:

- Karma Acoustic EasyPanel must be stored in a dry location
- Karma Acoustic EasyPanel must be stored flat
- The building structure should be watertight (unless offsite instructions adhered to)
- Acclimatise Karma Acoustic EasyPanel in the fitting location
- Read all instructions prior to fitting
- If in doubt, call the Karma Acoustic EasyPanel support team

Cutting Karma Acoustic EasyPanel:

- Ensure careful handling to minimise filler spillage – otherwise the final performance may be compromised
- Always cut with Karma Acoustic EasyPanel laid flat
- Use a straight edge for guidance
- Cut with a jigsaw, hand saw, knife or circular saw (ceramic tile tungsten carbide grit jigsaw blade, or general purpose tungsten carbide fine tooth circular saw blade, for longevity)
- Immediately seal all cut edges with Karma Acoustic EasyTape while board is vertical (see below).

Taping the Cut Edges of Karma Acoustic EasyPanel with Karma Acoustic EasyTape in Seconds

Karma Acoustic EasyPanel cut edges must be immediately taped after each single cut, in order to seal the filler. Otherwise the final performance of Karma Acoustic EasyPanel sound insulation board may be compromised.



1. Hold the cut edge upwards. Roll out the tape with a 3 to 5cm overhang at each side.



2. Press and smooth the tape onto the cut edge.



3. Tear the tape to length.



4. Press and smooth the tape down both edges.



5. Press and smooth the tape down both front and back faces.



6. Fold in the remaining wings onto both front and back faces.

A professionally cut and taped Karma Acoustic EasyPanel board in a few seconds.





KARMA

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