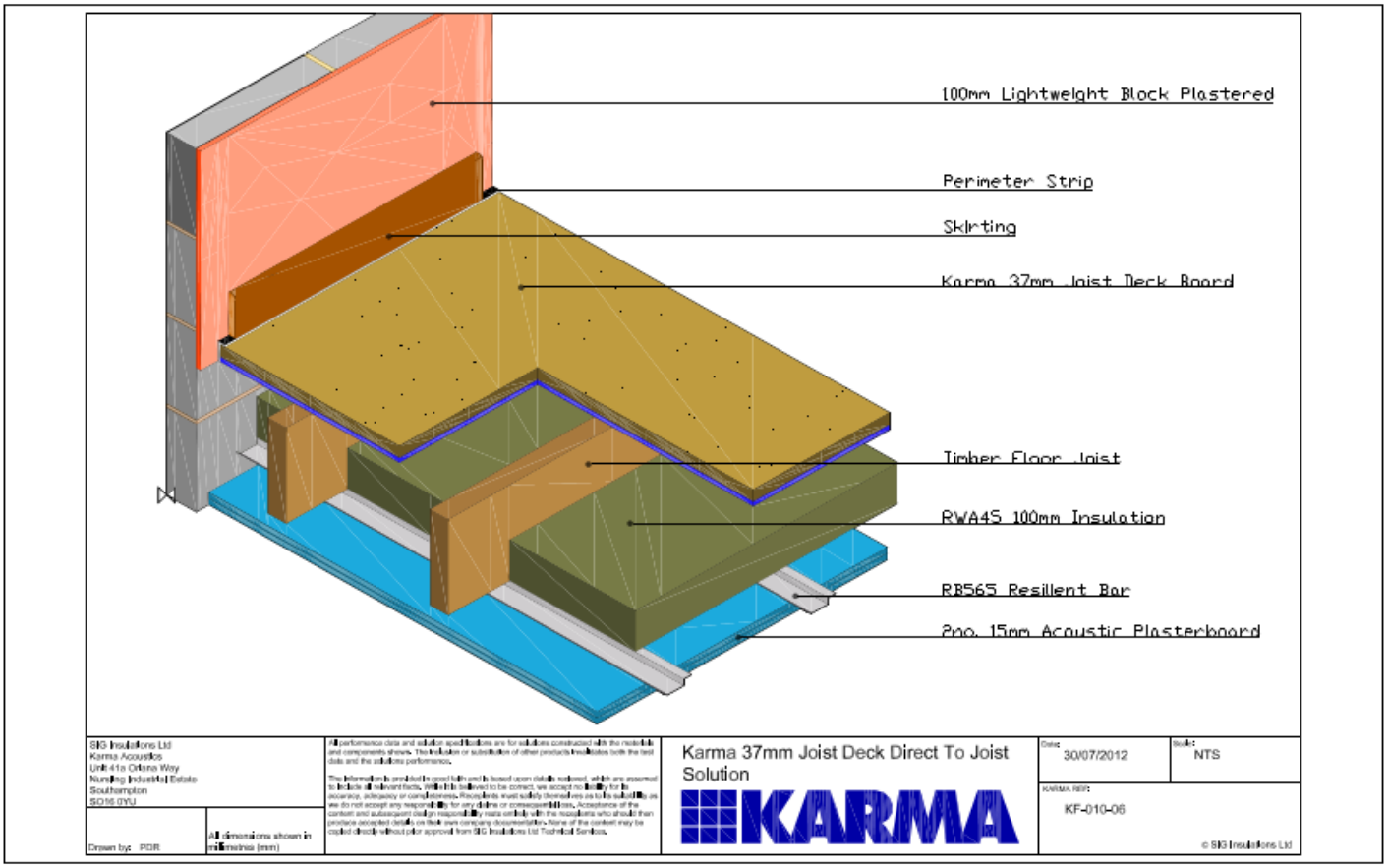
TECHNICAL INSTALLATION GUIDE FOR KARMA ACOUSTIC JOISTDECK 37 FOR PRE-COMPLETION TESTING OF TIMBER SEPARATING FLOORS

Karma Acoustic Joistdeck 37 reduces both airborne and impact sound through timber joist floors and it is installed directly to the joists. It is primarily designed for refurbishment of timber floors where the original floorboards need to be replaced and where there is an issue of raising the floor height. It is also suitable for use with lath and plaster ceilings.



Option 1: Direct to Timber Joist Solution (37mm Thickness Above) with Decoupled Ceiling Below (46mm)

Application: Easy to fit, slimline solution for existing timber joist floors where the original floorboards need to be replaced. The new or existing ceiling below is decoupled.

Construction: **Existing Timber Joist Floor**
- Floor without a sub-deck in place- 37mm Karma Acoustic Joistdeck 37
- Floor Covering of Choice

Ceiling Below
- Ceiling with or without existing plasterboard
- 16mm Resilient Bars
- 2 layers of 15mm acoustic plasterboard

See Pg 2 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 Joistdeck 37 is the resilient layer which has good Impact and Airborne sound reduction values. However, if care and attention to detail are not carried out to a high standard, the overall performance will be affected.

2. Flanking walls (walls connected to the separating floor) can carry both Airborne and Impact sounds to the rooms above or below, so it is therefore very important that Karma Acoustic Perimeter Strips are first installed to the perimeter of the room. This ensures that the Karma Acoustic Joistdeck 37 and any additional **hard finishing floor surface** do not touch these surrounding walls.

3. It is the fitter's responsibility to ensure all materials are safely and securely held.

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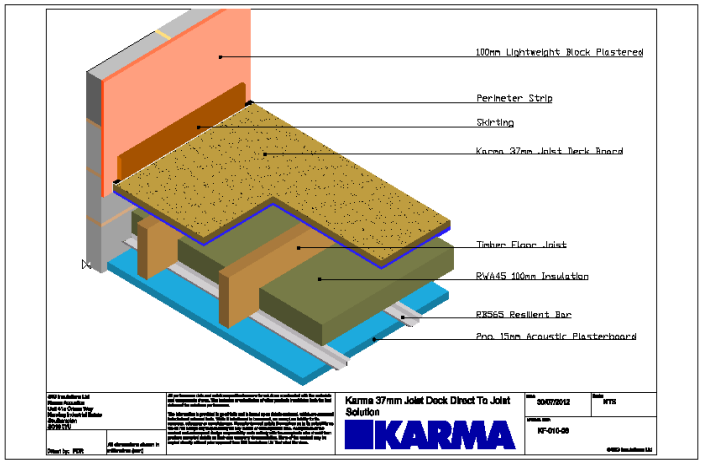

Application: Easy to fit, slimline solution for existing timber joist floors where the original floorboards need to be replaced. The new or existing ceiling below is decoupled. Can also be used as a solution if there is no access to the ceiling below.

Materials List

- 100mm of 45kg/M³ Mineral Wool between timber joists
- Karma Acoustic Joistdeck 37 (37 x 600 x 2400mm)
- Karma Acoustic Perimeter Strip
- Joint Adhesive to bond Karma Acoustic Joistdeck 37 joints
- Noggins to support joints between timber joists
- Acoustic Sealant
- Floor Covering of Choice

Ceiling Below with or without existing plasterboard

- Speedline Resilient Bars (3M x 75mm x 16mm deep)
- 2 layers of 15mm acoustic plasterboard
- Drywall screws to secure resilient bars to timber joists
- Drywall screws to secure plasterboard to the resilient bars (25mm & 38-42mm lengths)
- Acoustic Sealant

Installation Instructions - (Read all steps before fitting)

1. The roof of the building and the windows must be in place prior to the installation of the Karma Acoustic Joistdeck 37 panels.

2. Remove the existing timber floorboards and skirting boards. Ensure the top surface of the floor joists are flat and free of debris.

3. 100mm of 45kg/M³ Mineral Wool should be placed between the timber joists to enhance results further, leaving an air void above it.

4. Karma Acoustic Perimeter Strips must be attached to the base of the walls directly above the joist level, and all around the perimeter of the room. These will isolate the Karma Acoustic Joistdeck 37 and the finished flooring from the walls in order to reduce the risk of creating flanking paths.

5. Commence installation in the furthest corner of the room and work towards the door openings. Use a suitable temporary, moveable surface to walk on to protect the plasterboard and mineral wool below.

6. Cut the tongues off the joints in the Karma Acoustic Joistdeck 37 panels which will be next to the perimeter walls, so that a square edge tightly abuts the Karma Acoustic Perimeter Strip. Due to the nature of the product, it is possible that a small percentage of the boards will have slight edge detail damage, so these boards should be chosen for use as perimeter boards.

7. Lay the foam side of the Karma Acoustic Joistdeck 37 panels directly to the joists in a brickwork pattern ensuring the boards are tightly interlocked to each other by squeezing joint adhesive on to the tongue and groove section of the panels before joining them together, as per the adhesive manufacturer's instructions. **Do NOT screw-fix Karma Acoustic Joistdeck 37 to the floor joists, other than as a temporary measure whilst the joint adhesive is setting.** These screw holes must be sealed afterwards to reduce the passage of sound.

8. Where the Karma Acoustic Joistdeck 37 joints fall midway between the floor joists, place a noggin of similar height to the joists in the floor void, to support these joints.

9. Use an Acoustic Sealant to seal any gaps between the edge of the Karma Acoustic Joistdeck 37 panels and the Karma Acoustic Perimeter Strip. Holes through the floor e.g. radiator pipe penetrations should be similarly sealed. **Remember, sound will pass through any gaps.**

10. Partitions: Lightweight timber or metal stud partitions may be built on the Karma Acoustic Joistdeck 37. However separating walls comprised of twin studs should always be built off the floor joists.

11. Skirting Boards: Ensure that you pull the Karma Acoustic Perimeter Strip out over the **finished flooring** and fit the skirting board over this so as to eliminate the possibility of flanking noise between the walls and the floor. The excess Perimeter Strip can then be trimmed off with a sharp knife.

Ceiling Below

12. If you have access to the ceiling below, the following procedure should be carried out for much enhanced results. On existing ceilings 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 Acoustic Sealant. Establish where the joists are located and their spacing if plasterboard is in place, and mark their position on the wall for reference.

13. Fix the Resilient Bars perpendicular to the joists by screwing drywall screws through the pre-drilled holes in through the original plasterboard (if in place) and into the timber joists. **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 tin snips 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 joist. This Resilient Bar process decouples the new sound insulated ceiling from the original floor/ceiling structure which reduces vibrations, so enhances results significantly. Mark the position of the bars on the surrounding walls as a reference point.

14. 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 ceiling edges, to stop vibrations with the surrounding walls.** On a new ceiling, or an existing ceiling where the plasterboard was removed, add a second layer of plasterboard using 38-42mm drywall screws, again screwing them into the ridged part of the resilient bars only. Ensure the joints of each layer of plasterboard do not align, as this may cause an air path.

15. When finished installing the plasterboard, fill and tape all joints and screw heads.

16. Seal 5mm perimeter gaps with Acoustic Sealant.

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