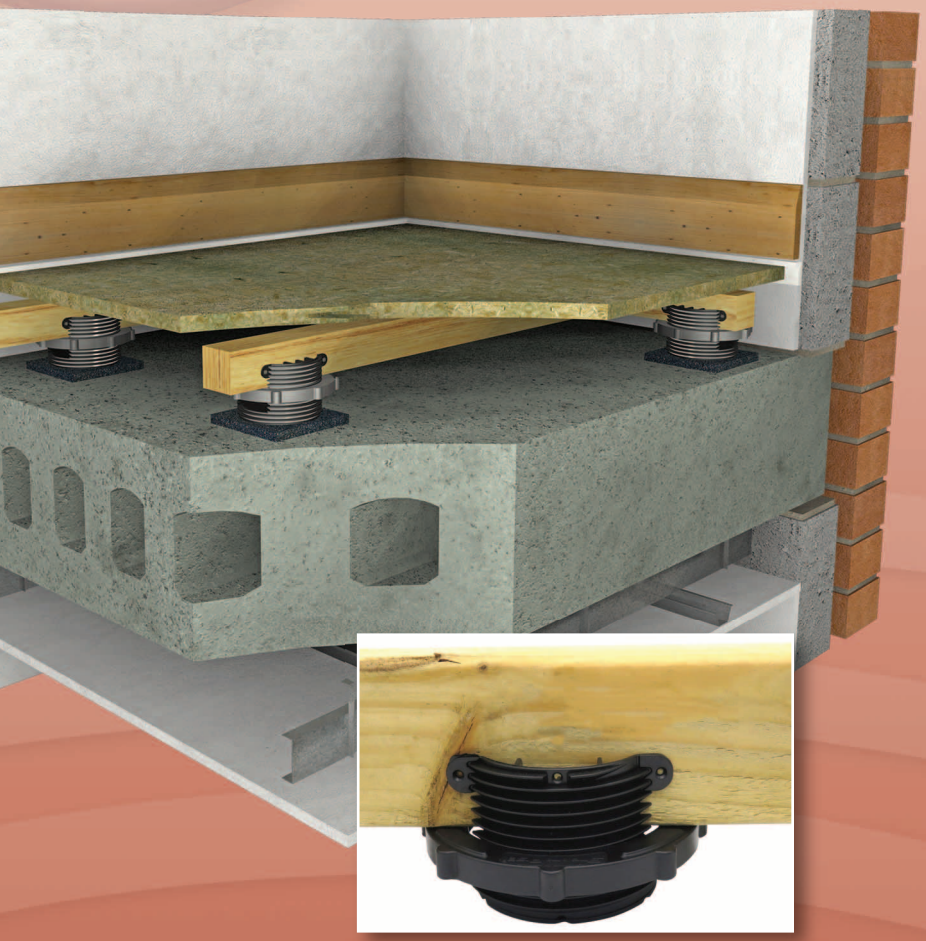
Issue 1.5 • April 2024

One of the isomass systems range

isocheck™

Adjustable Acoustic Cradle System



SUSPENDED SYSTEM FOR UNEVEN CONCRETE FLOORS

- New build
- Conversions
- In conjunction with underfloor heating systems
- Adjustable support for flat roof terraces

Institute of Acoustics sponsoring organisation

MADE IN THE UK

QAS International ISO 9001:2015 REGISTERED COMPANY

9 ABS

Taking the *mystery* out of Acoustics

DESCRIPTION

- The Isocheck Adjustable Acoustic Cradle system is designed to reduce sound transmission through concrete floors.
- The Adjustable Cradle comprises an injection moulded recycled plastic adjustable thread and supporting ring to ensure precise levelling across uneven concrete sub-floors without the need for conventional packers. Additional elevating blocks are available for applications where extra height is required (shown below).
- The Cradle is New Build Robust Detail compliant for masonry floor construction and where the structural sub floor has a camber or is irregular and needs levelling.

APPLICATIONS

- To be used over hollow core, in-situ or supported metal deck concrete floors for new build or conversions.

E1 CHANGE · E1 NEWBUILD · Rd ROBUST · N · C

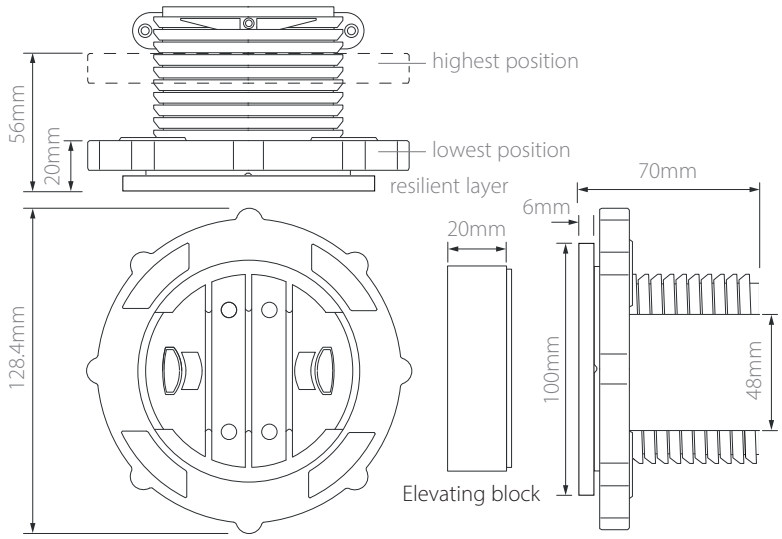
isocheck™
acoustic insulating products

isocheck™ suspended acoustic floor system

Product data

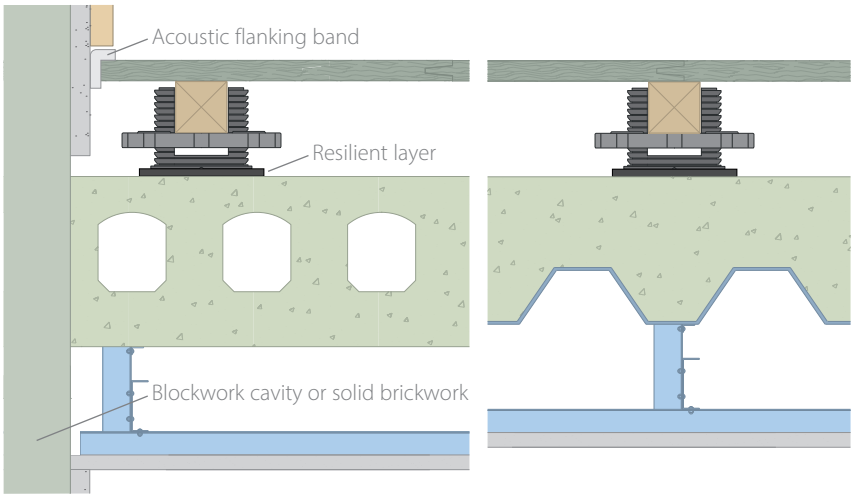
Overall size inc. resilient layer:	128.4mm diameter x 70mm height
Minimum raise*:	20mm
Maximum raise*:	56mm
Resilient layer:	100mm x 100mm x 6mm thick Isopoli HD
Cradle body:	Recycled ABS

* without additional elevating blocks



Performance (on the two New Build Robust Detail constructions below)

Treated floor meets with the New Build Robust Detail descriptive FFT2, typically within Robust Details E-FC-1, E-FS-1, E-FC-2 and E-FC-7. Two typical alternative constructions are shown below.



- 18mm or 22mm chipboard floor over Isocheck Adjustable Cradle with a (commonly used) strength-graded 45mm x 45mm batten @ 400mm centres.
- min. 150mm hollow core concrete plank min. 300kg/m² excl screed ***or*** 130mm min. in-situ concrete (80mm min. fully supported) on profiled metal deck.
- metal frame suspended ceiling with 75mm void and 10kg/m² plasterboard or with100mm void and 8kg/m² plasterboard.

Every effort has been taken in the preparation of this sheet to ensure the accuracy of representations contained herein. Recommendations as to the use of materials, construction details and methods of installation are given in good faith and relate to typical situations. However, every site has different characteristics and reliance should not be placed upon the foregoing recommendations. Advice can be given as to specific applications of the products, upon request to isomass building products.

SPECIFICATION

The acoustic floor shall be:

- Isocheck Adjustable Acoustic Cradle system, supplied by Isomass Ltd. Unit 14 Papworth Business Park, Stirling Way, Papworth Everard, Cambridgeshire CB23 3GY and installed in accordance with manufacturer's instructions / recommendations.

INSTALLATION

- Lay Isocheck Adjustable Cradle on separate 6mm thick resilient layer and adjust to suit the floor. Screw fix the Cradle to the battens.
- Lay 18mm or 22mm chipboard deck in brick bond pattern on timber battens (preferably stress graded) with all joints supported, applying adhesive to all tongued and grooved panel joints.
- Apply Isocheck Acoustic Angled Flanking Band on the edges of the chipboard just before they are pushed against the perimeter walls to isolate the board from the wall.
- Install skirting and trim off excess Flanking Band.
- Full installation instructions are available and must be used in conjunction when laying this floating floor system.

For advice on treatment of services and penetrations, consult our brochure or visit our website.

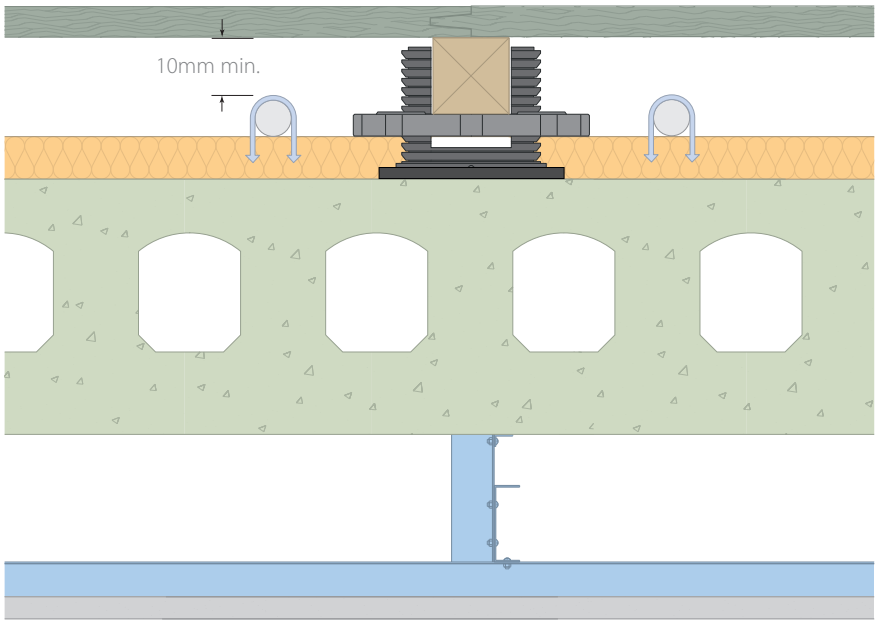
www.isomass.co.uk

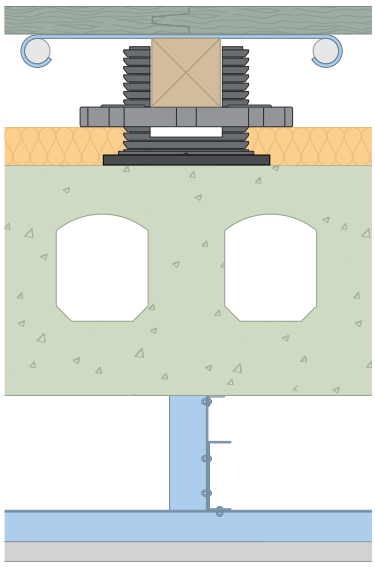
isomass® building acoustics

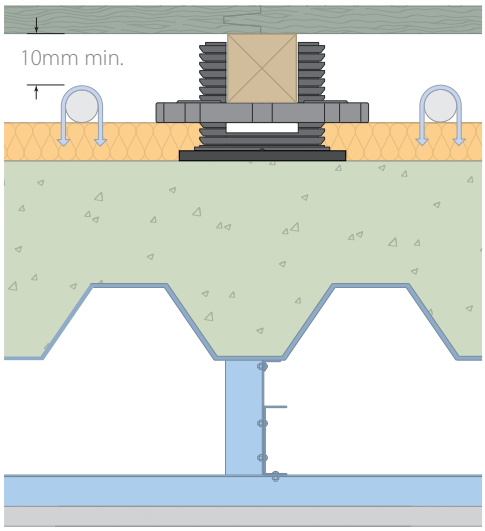
Isomass Limited, Unit 14 Papworth Business Park, Stirling Way, Papworth Everard, Cambridgeshire CB23 3GY
Tel: 0330 175 8228
Email: info@isomass.co.uk • www.isomass.co.uk

isocheck™

suspended acoustic floor system







Isocheck Adjustable Cradle and batten system incorporating an underfloor heating system

Isomass Ltd has developed a number of acoustic floor solutions that could complement the requirement for underfloor heating.

The company's experience in acoustics will ensure that the integration of the underfloor heating system meets your requirements.

The floor details shown are known to comply with Approved Document E of the building regulations and in some cases Robust Details.

Should they not match your requirements, please contact Isomass Ltd who will be happy to discuss suitable alternatives.

For advice on treatment of services and penetrations, consult our brochure or visit our website:

www.isomass.co.uk

- 18mm or 22mm chipboard floor over Isocheck Adjustable Cradle with 45mm x 45mm batten @ 400mm centres.
- 25mm mineral fibre insulation 36kg/m^3 with pipe fixings.
- 150mm hollow core concrete plank min. 300kg/m^2 excl screed. with metal frame suspended ceiling (min. 100mm void) and 8kg/m^2 plasterboard (top) ***or***
- 130mm min. in-situ concrete (80mm min. fully supported) on profiled metal deck. with metal frame suspended ceiling (min. 75mm void) and 10kg/m^2 plasterboard (bottom right).
- alternative arrangement using propriety supporting pipework tray (bottom left).

Every effort has been taken in the preparation of this sheet to ensure the accuracy of representations contained herein. Recommendations as to the use of materials, construction details and methods of installation are given in good faith and relate to typical situations. However, every site has different characteristics and reliance should not be placed upon the foregoing recommendations. Advice can be given as to specific applications of the products, upon request to isomass building products.

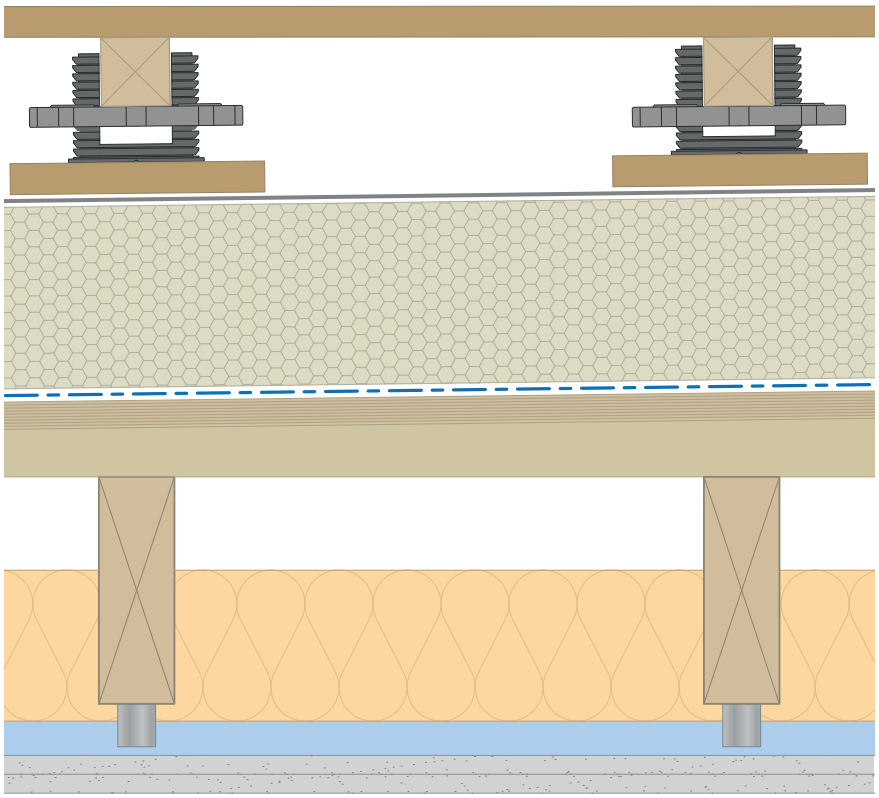
www.isomass.co.uk

isomass®
building acoustics

Isomass Limited, Unit 14 Papworth Business Park,
Stirling Way, Papworth Everard, Cambridgeshire CB23 3GY
Tel: 0330 175 8228
Email: info@isomass.co.uk • www.isomass.co.uk

isocheck™

suspended roof terrace system



Typical construction

- hardwood timber deck.
- Isocheck Adjustable Cradle with a (commonly used) strength-graded 45mm x 45mm batten* @ 400mm centres. If required, the adjustable Cradle can be placed on WBP plywood spreader plates.
  * deeper battens can also be used.
- mechanically fixed or fully adhered single ply membrane.
- rigid insulation fixed to timber deck (for example, foil-faced polyisocyanurate (PIR) insulation) - type, thickness and fixing requirements as specified by the Architect.

- vapour control layer (AVCL) (for example, min. 1000 gauge (250µm) polyethylene sheet).
- 18mm min. plywood deck on timber firrings.
- 150mm x 50mm timber joists at 400mm centres with 100mm mineral fibre insulation between the joists.
- Isocheck Isoblock and Isobar system fixed to underside of joists. Please refer to separate product datasheet and installation instructions, available from Isomass, for details.
- two layers of staggered, sealed 12.5mm sound-grade (fire rated) plasterboard (min. total combined mass 22kg/m^2).

For additional information and advice on the use of our Adjustable Cradle system in a flat roof terrace, including free CAD details, design guidance and installation instructions - contact our technical department at: info@isomass.co.uk

Every effort has been taken in the preparation of this sheet to ensure the accuracy of representations contained herein. Recommendations as to the use of materials, construction details and methods of installation are given in good faith and relate to typical situations. However, every site has different characteristics and reliance should not be placed upon the foregoing recommendations. Advice can be given as to specific applications of the products, upon request to isomass building products.

Isocheck Adjustable Cradle and batten system for flat roof terraces

Our Adjustable Cradle and batten system is also designed to work with decking in an inverted flat roof.

It opens up endless possibilities for the design and layout of an outdoor space in a roof terrace.

As flat roofs need to have a minimum finished fall of 1:80 (as defined in BS 6229:2018) to ensure water will not pond on the roof surface, Isocheck adjustable Cradle and battens will allow the finished surface to be actually flat - so providing a usable terrace area.

BENEFITS

- Lightweight and easy to install.
- Made from recycled plastics.
- Precise height adjustment.
- Easily removed and reused.
- Gradient adjustable.
- Provides a cavity for services.
- Facilitates rapid surface drainage.
- Resistant to changes in ambient temperature.
- Resistant to ice under the terrace.
- Not biodegradable.
- When correctly installed will resist movement of the leveled floor surface under the terrace.
- Quick and easy disassembly in the event of a terrace inspection.

www.isomass.co.uk

isomass® building acoustics

Isomass Limited, Unit 14 Papworth Business Park, Stirling Way, Papworth Everard, Cambridgeshire CB23 3GY
Tel: 0330 175 8228
Email: info@isomass.co.uk • www.isomass.co.uk