

Resonate Systems Acoustic Product Brochure

www.resonatesystems.co.uk

Why Choose Resonate Systems?

At Resonate Systems, we specialise in creating innovative and high-quality solutions for modern building environments. Established in January 2019 by our Managing Director, Richard Hillman, Resonate Systems builds on over 20 years of industry expertise.

✓ **Midlands Based Manufacturer**

Located in Leicestershire, we are proud manufacturers of underfloor heating panels and acoustic insulation products. Our location allows us to make fast and efficient deliveries.

✓ **Superior Quality**

Our commitment to excellence drives us to design and deliver systems that enhance comfort, efficiency, and sound performance in residential and commercial spaces.

✓ **Technical Support**

When choosing the ideal product for your project, our technical team is here to assist you with any technical inquiries.

✓ **Accredited Products**

We are proud to have a range of Resonate acoustic boards that have been tested and accredited to Robust Details standards.

Acoustic Solutions to Deal with Noisy Neighbours

At Resonate Systems, we understand how disruptive noise can be in homes and shared spaces, which is why we offer a comprehensive range of acoustic insulation products designed to tackle noisy neighbour issues effectively.

Our solutions are engineered to reduce sound transmission between floors and walls, creating quieter and more peaceful environments. Whether you're dealing with everyday disturbances or specific noise challenges, our innovative products provide the performance and reliability you need to restore comfort and tranquillity to your space.

Ensuring Acoustic Compliance: Part E Regulations & **robust detail**[®] Solutions

Part E Building Regulations

Part E of the UK Building Regulations sets out requirements for sound insulation in buildings, ensuring adequate resistance to airborne and impact noise between dwellings. Compliance is essential for both new builds and refurbishment projects to enhance occupant comfort and privacy. Resonate Systems manufactures a range of high-performance acoustic insulation solutions designed to meet and exceed Part E standards, providing effective noise control for floors, walls, and ceilings in residential and commercial buildings.

	England & Wales Part E		Scotland Section 5	
	New Build	Change of Use	New Build & Conversions	Traditional Buildings
Airborne (Floors and Walls) Sound Performance $D_{nT,w}+Ctr$	>45dB	>43dB	>56dB*	>48dB*
Impact Sound (Floors) Performance $L_{nT,W}$	<62dB	<64dB	<56dB	<58dB

*Effect of Ctr not included

robust detail[®]

Robust Details (RDs) are pre-approved construction solutions that provide a streamlined route to compliance with Part E of the UK Building Regulations, eliminating the need for on-site pre-completion sound testing. These tested and certified designs ensure high levels of acoustic performance in separating floors and walls. Resonate Systems offers a range of Robust Detail compliant products, delivering reliable and effective sound insulation solutions for residential developments.

ResoDeck



Acoustic



Part E



Robust Detail Compliant

Scan for more information



RESODECK are a range of high performance chip board based acoustic floor panels ideal for refurbishment applications. The panels effectively reduce noise to improve living conditions and help meet Part E regulations. Different resilient layer options are available.

ResoDeck 23PRO



ResoDeck 23 PRO panels are 23mm thick acoustic overlay boards. Panels are installed on timber or concrete sub-decks before adding final floor coverings.

Key Benefits

- 18mm P5 chipboard top layer bonded to a 5mm ResoFleece resilient layer, providing excellent impact sound reduction
- Low profile, minimal impact on floor height
- Easy to install tongue and groove edge

ResoDeck 28PRO



ResoDeck 28 PRO panels are 28mm thick acoustic overlay boards. The composite acoustic overlay panel is laid as a floating floor on top of the timber or concrete sub-floor, before the final floor coverings (carpet, laminate etc) are installed.

Key Benefits

- 18mm (22mm option available) P5 chipboard top layer is technically bonded to 10mm ResoFleece, a high performance fibre resilient layer
- ResoFleece resilient layer provides superior impact sound reduction, making it ideal for residential properties that require reduction of foot fall noise
- Low profile, minimal impact on floor height
- Easy to install tongue and groove edge



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ResoDeck 28 WF



ResoDeck 28 WF is a high performance acoustic floor solution suitable for use on concrete separating floors. The composite acoustic overlay panel is ideal for new build and refurbishment applications.

Key Benefits

- 18mm (22mm option available) P5 chipboard top layer is bonded to a high compressive strength acoustic layer, making it ideal for areas with high foot traffic, white goods and heavy furniture
- Low profile, minimal impact on floor height
- Easy to install tongue and groove edge

ResoDeck 32PRO



ResoDeck 32 PRO is a high performance acoustic flooring solution and is laid as a floating floor on top of the timber or concrete sub-floor, before the final floor coverings (carpet, laminate etc) are installed.

Key Benefits

- 22mm P5 chipboard top layer is bonded to 10mm, a high performance fibre resilient layer
- Low profile, minimal impact on floor height
- Excellent impact sound reduction
- Easy to install tongue and groove edge

ResoDeck DIRECT



ResoDIRECT acts as a structural floor making it ideal for "direct to joist" installation in refurbishment applications.

Key Benefits

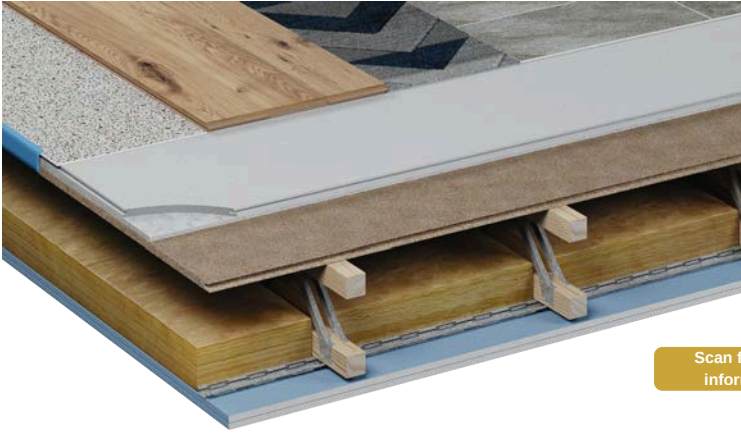
- 22mm P5 chipboard top layer is bonded to two high performance layers below a 10mm resilient wood fibre board layer, and 5mm ResoDeck DIRECT polyester fibre equalisation layer
- Low impact on overall floor height, at only 37mm high
- Excellent impact sound reduction for structural floors
- Easy to install tongue and groove edge

The P5 chipboard used to manufacture these panels is FSC® certified (FSC-C221537).



The mark of
responsible forestry
FSC® C221537

GYPDECK



Acoustic



Part E



**Robust Detail
Compliant**

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GYPDECK dry screed acoustic floor panels, provide a combination of excellent impact and airborne noise reduction, simple installation and reduction in build time benefits. The high density gypsum fibre panels are able to accept floor finishes including ceramic tiles directly making them an ideal soundproofing solution for any room and floor. Laid directly on the subdeck the GYPDECK panels have minimal impact on the floor height.

GYPDECK 18



GYPDECK 18 is a high density, 'dry screed' panel for floors. The low thermal resistance of the GYPDECK 18 boards also makes them hugely effective when used in underfloor heating applications.

Key Benefits

- Excellent impact and airborne sound reduction
- Low thermal resistance for optimum floor heating conditions
- High density boards accept ceramic and porcelain floors directly without a decoupling mat
- Dry system offers significant time saving benefits over wet screed flooring solutions
- Does not burn when exposed to fire (non-combustible)



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GYPDECK 28



GYPDECK 28 is a high density, dry screed acoustic panel for floors. The panels incorporate a 10mm layer of a very high performance recycled soundproofing resilient layer.

Key Benefits

- Excellent impact and airborne sound reduction
- No screws, tongue and groove edge, high compressive strength
- High density boards accept ceramic and porcelain floors directly without a decoupling mat
- Dry system offers significant time saving benefits over wet screed flooring solutions
- Does not burn when exposed to fire (non-combustible)

GYPDECK WF

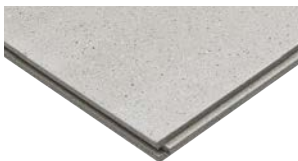


GYPDECK WF is a high density, dry screed acoustic panel for floors. The panels incorporate a 10mm high compressive strength wood fibre (WF) resilient layer.

Key Benefits

- Excellent impact and airborne sound reduction
- No screws, tongue and groove edge, high compressive strength
- High density boards accept ceramic and porcelain floors directly without a decoupling mat
- Dry system offers significant time saving benefits over wet screed flooring solutions
- Does not burn when exposed to fire (non-combustible)

GYPDECK Structural



GYPDECK Structural is a high mass, load bearing gypsum fibre floor panel. It is suitable to spanning joists, pedestals and acoustic cradle and batten systems.

Key Benefits

- Excellent impact and airborne sound reduction
- low thermal resistance of the boards also makes them hugely effective when used in conjunction with underfloor heating applications
- boards are very dimensionally stable and do not suffer from contraction and expansion issues normally associated with timber based structural flooring
- High density boards accept ceramic and porcelain floors directly without a decoupling mat
- Dry system offers significant time saving benefits over wet screed flooring solutions
- Does not burn when exposed to fire (non-combustible)

ResoMat



Acoustic



Part E



Noisy Neighbour product

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RESOMAT are a range of high performance acoustic underlays which can be used in both new build and refurbishment developments.

ResoMat 8



ResoMat 8 is a heavy duty acoustic underlay which provides excellent impact sound reduction from foot fall noise and also helps to reduce some airborne sound such as talking and televisions from rooms above or below.

ResoMat 8 consists of a high performance cross linked foam resilient layer, which is bonded to a sheet of 7.5 kg/m² mass loaded vinyl.

Key Benefits

- Excellent impact and airborne sound reduction
- Thin space saving solution only 12mm
- Strong and robust soundproofing material

ResoMat 15



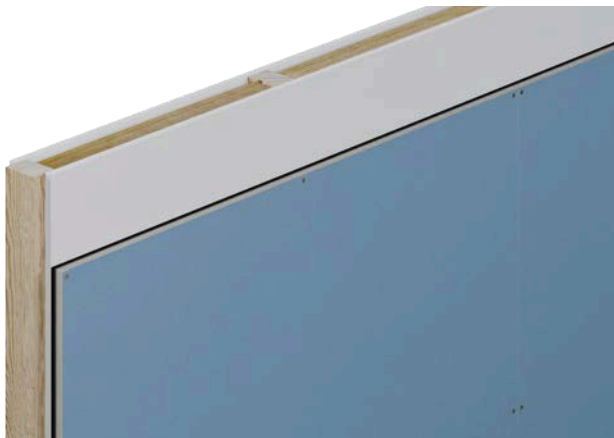
ResoMat 15 is a heavy duty acoustic underlay which provides excellent impact and airborne sound reduction. The double layer of mass loaded vinyl greatly reduces airborne sound, such as talking and televisions from rooms above or below.

ResoMat 15 consists of a high performance cross linked foam resilient layer which is sandwiched between two layers of 7.5 kg/m² mass loaded vinyl.

Key Benefits

- Excellent impact and airborne sound reduction
- Thin space saving solution only 15mm
- Strong and robust soundproofing material

ResoBoard



Acoustic



Part E

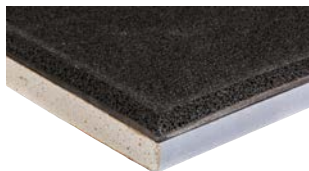


Noisy Neighbour product



ResoBoard's are a range of high performance acoustic wall lining boards. The boards are suitable for timber stud, brick and concrete block walls and are effective in new build and refurbishment developments.

ResoBoard 3



ResoBoard 3 is a high performance, 27mm thick acoustic wall lining board. The boards are suitable for timber stud, brick and concrete block walls and are effective in new build and refurbishment developments.

Key Benefits

- Low space impact on existing wall (27mm)
- Effective airborne noise reduction for sounds such as talking and television
- Paper face, for easy plaster finish

ResoBoard 4



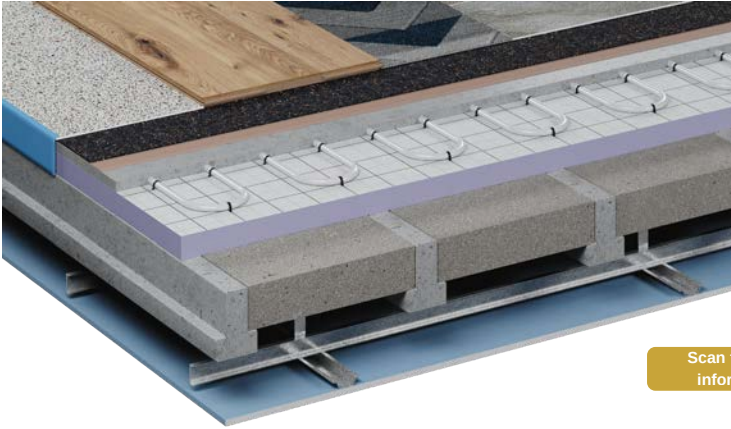
ResoBoard 4 is a high performance, 30mm thick acoustic wall lining board. The boards are suitable for timber stud, brick and concrete block walls and are effective in new build and refurbishment developments

Key Benefits

- Low space impact on existing wall (30mm)
- Excellent airborne noise reduction for sounds such as talking, television and low frequency (such as bass tones)
- Paper face, for easy plaster finish

For ResoBoard accessories see **page 14**

ResoRubber



Acoustic



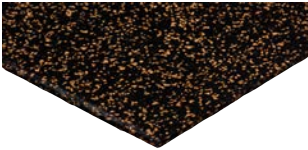
Part E

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Resonate's **ResoRubber** are a range of thin and robust surface bonded resilient layers, primarily used in under screed applications to acoustically isolate the screed from the sub-floor and flanking walls.

ResoRubber *Top*



ResoRubber Top effectively helps to reduce impact variations at source. It is ideal to be used below floor finishes such as engineered wood, ceramic tiles and luxury vinyl tiles.

Key Benefits

- Excellent impact sound reduction
- Thin space saving solution, 3 and 4.5mm options
- High point load capacity
- Strong and robust soundproofing material
- Manufactured from recycled rubber granules bonded with cold cure PUR

ResoRubber *Base*

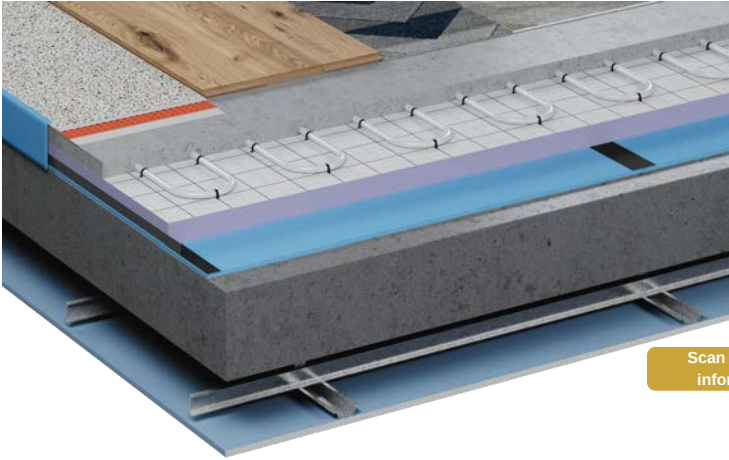


ResoRubber Base is primarily used in under screed applications to acoustically isolate the screed from the sub-floor and flanking walls.

Key Benefits

- Excellent impact sound reduction
- Thin space saving solution, 3, 5, 6, 8 and 10mm options
- High point load capacity
- Strong and robust soundproofing material
- Manufactured from recycled rubber granules bonded with cold cure PUR

ResoFoam



Acoustic



Part E

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Resonate's **ResoFoam 10 System Kit** is a complete acoustic solution for under screed applications.

ResoFoam10 *System Kit*



ResoFoam 10 System Kit isolates the screed from the sub-floor and significantly reduces the transmission of impact noise. ResoFoam 10 System Kit closed cell polyethylene rolls feature thermoplastic coupling technology at their core, giving the system superior tensile and compressive strength over other 10mm polyethylene systems.

Key Benefits

- Excellent impact sound reduction
- Thin 10mm solution, high resistance to moisture, tearing and snags
- Superior tensile and compressive strength properties
- 100% recyclable Zero VOC's, Zero CFC's Zero ODPs, GWP <5

Acoustic & UFH Systems



Acoustic



Part E

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Resonate's **ResoThermchip R dB** is a single component under floor heating and acoustic system, saving time on installation.

ResoThermchip®dB



ResoTherm chip R dB are a CNC grooved 22mm chipboard system available in 1200mm and 2400mm lengths, and either foiled or non-foiled. The chipboard is bonded to a layer of 8mm (recycled crumb rubber resilient layer) to help attenuate impact noise (footfall) vibrations passing to the floor below. Underfloor heating pipes are laid inside the panels, and able to retain heat efficiently and effectively. The boards should be overlaid with a 6mm plywood layer after installing the UFH pipework.

Key Benefits

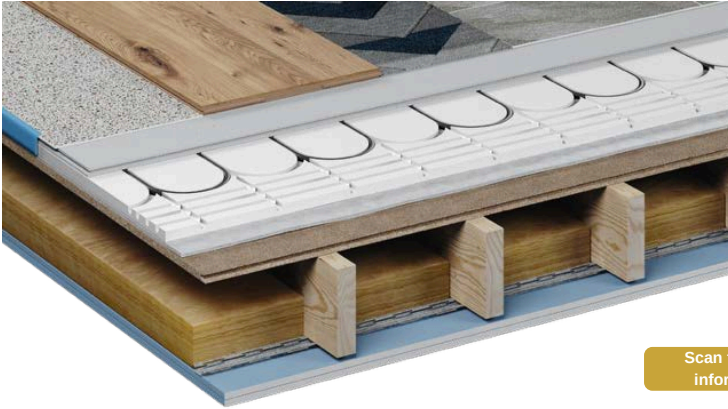
- ResoRubber resilient layer provides effective impact noise reduction
- Suitable for all types of 10mm, 12mm UFH pipes
- Good heat outputs - UFH pipes are closer to surface finish than traditional FFB (fit from below) installation
- Can be used on a acoustic system on separating floors

The P5 chipboard used to manufacture these panels is FSC® certified (FSC-C221537).



The mark of
responsible forestry
FSC® C221537

Acoustic & UFH Systems



Acoustic



Part E



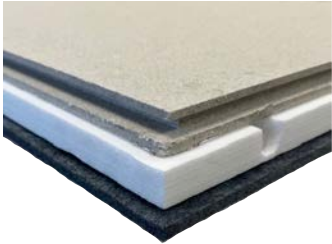
Robust Detail Compliant

Scan for more information



Resonate's **GYPDECK 18 +ufh** is a complete under floor heating and acoustic system. GYPDECK dry screed panels are installed in conjunction with insulation boards to deliver a high performance acoustic and underfloor heating system.

GYPDECK 18 +ufh



GYPDECK 18 +ufh combines both ResoTherm insulation boards, and ResoFleece to create a complete acoustic and underfloor heating system. The low thermal resistance of the GYPDECK 18 boards makes them hugely effective when used in underfloor heating applications.

Key Benefits

- Excellent impact and airborne sound reduction
- Low thermal resistance for optimum floor heating conditions
- High density boards accept ceramic and porcelain floors directly without a decoupling mat
- Dry system offers significant time saving benefits over wet screed flooring solutions
- Does not burn when exposed to fire (non-combustible)

Acoustic Accessories

ResoEdgeRoll



ResoEdgeRoll are high performance straight edge acoustic flanking strips. They are installed in conjunction with our acoustic flooring and wall lining products to isolate the treatments from walls, skirting boards and all abutments, reducing the risk of flanking transmission occurring and acoustic failure.

Key Benefits

- Isolate floors and walls to prevent floors failing Part E sound testing
- Available in multiple widths
- Light weight, easy to handle and quick to install

ResoEdge L30



ResoEdge L30 are 'L' shaped soundproofing strips installed around the floor perimeter of acoustic floor treatments. They isolate the acoustic flooring from the walls and skirting boards / door frames, and prevent potential acoustic flanking transmission occurring.

Key Benefits

- White colour speeds up build times compared to other colour options
- Isolate floating floor and prevent floors failing Part E sound testing
- Light weight, easy to handle and quick to install
- 100% recyclable, Zero VOC's, Zero CFC's, Zero ODPs, GWP <5

GYPDECK[®] ADHESIVE



GYPDECK Adhesive is specially formulated single component moisture curing polyurethane with excellent water resistant characteristics. GYPDECK Adhesive is used to bond the joints of all Resonate Systems GYPDECK products (**see page 6 and 7**)

Key Benefits

- Excellent water resistance - EN204 D4
- Quick curing
- Excellent bond strength

Acoustic Accessories

ResoBoard Fixings



ResoBoard Fixings. When fixing ResoBoards to a masonry/brick wall, 9 ResoBoard fixings are required per board. Sold in bags of 36, providing enough fixings for 4 boards.

Key Benefits

- Durable Nylon plug
- Quick assembly
- Easy tap in and screw out

Bond It AS900



AS900 is a high-quality acrylic sealant and adhesive that offers outstanding adhesion to various common building materials, making it an excellent choice for interior applications. It's particularly effective for sealing drywall partitions to minimize noise transmission and for filling cracks and joints with minimal movement.

Key Benefits

- Quick curing
- Permanently flexible
- Over paintable within 1 hour
- Solvent free and easy to smooth

RESOBOND

D3 PVA ADHESIVE



RESOBOND Adhesive is a D3 PVA wood glue. RESOBOND EVA adhesive is used to bond the joints of all Resonate Systems ResoDeck products.

Key Benefits

- Quick curing
- Excellent bond strength
- Cost effective joint glue
- Non-hazardous



If you wish to talk about your upcoming acoustic project, you can contact our technical team using the methods listed below.



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