

# HUSH ACOUSTICS

## PRODUCTS AND SYSTEMS



**HUSH ACOUSTICS**  
Sound Insulation Products and Systems

[www.hushacoustics.co.uk](http://www.hushacoustics.co.uk)

# ABOUT US

**HUSH ACOUSTICS HAVE BEEN INVOLVED IN THE DESIGN AND MANUFACTURING OF SOUND REDUCING PRODUCTS FOR OVER 30 YEARS MAKING US ONE OF THE OLDEST AND MOST ESTABLISHED ACOUSTIC SPECIALISTS IN THE UNITED KINGDOM.**

Hush Acoustics launched in 1984 in Scotland, which is now considered in the industry as the home of sound insulation.

Hush relocated to North West England in 1998 so we could establish a nationwide distribution network, covering all areas within the UK. From our facility in Liverpool we manufacture and distribute our range of acoustic products and systems to all corners of the UK and when possible we like to get products to site on a next day delivery service. We have opened offices in London and West Yorkshire so that we can cover the UK easily and offer what we believe is a unique service.

At Hush Acoustics we have developed an extensive product range to cater for all acoustic applications. This includes our wide range of acoustic flooring, acoustic battens and cradles, acoustic insulation, resilient bar systems, suspended ceiling systems, specialist wall boards, flanking strips, absorber panels and much much more.

All products and systems that have been developed by Hush to exceed the UK's minimum building requirements for sound transmission in Scotland (Section 5), Northern Ireland (Part G) and England & Wales (Part E). This also includes Robust Details solutions, Code For Sustainable Homes parameters and BB93 acoustics in schools guidance.









## OUR TEAM



### WE COVER ALL MARKET SECTORS THAT REQUIRE ACOUSTIC PRODUCTS AND SYSTEMS.

These market sectors are:

-  Residential
-  Education
-  Industrial and Commercial
-  Healthcare facilities
-  Leisure Facilities
-  Domestic properties

Within these sectors we provide solutions for floors, walls and ceilings and advice on all issues within construction that effect the acoustic performance of a building.

As an eco-friendly company our products are responsibly sourced from sustainable and recycled raw materials with absolute minimum.







“ Hush have a fully qualified team and are in a position to answer any acoustic enquiry you may have. We have an expert technical division that is headed up by our technical manager David Holder and an experienced sales team headed up by Steph Parry. We hope you enjoy the brochure and should you wish to discuss any development, application, situation, product or system then we are more than happy to help. ”

Many thanks

Robert Crampton - Managing Director




## HUSH ACOUSTICS

Sound Insulation Products and Systems


We are moving the industry forward and believe we are a thought leader with new products and systems and new ways of achieving the levels of acoustic performance that our industry now thrives for.

We regularly update our social media platforms such as

 LinkedIn [robertcrampton](#)

 Twitter [@hushacoustics](#)

 Facebook [hushuk.acoustics](#)

 Pinterest [hushacoustics](#)

We also have a blog page that allows Hush to publish important information about the industry and about the company.

We feel it is very important, as a market leader that we help make all relevant information as accessible as possible.

We urge you to join us on these platforms.

[www.hushacoustics.co.uk](http://www.hushacoustics.co.uk)



**AS A QUICK REFERENCE POINT HERE IS A LIST OF MANY OF THE SERVICES WE OFFER**

- Economical Solutions
- Comprehensive technical advice
- Many system and products options for all design criteria
- Nationwide coverage to attend site meetings or design meetings
- CPD presentations
- Design advice for all UK Building Regulations – Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland).
- Acoustics in schools advice and help with BB93 design guidelines
- Acoustics in healthcare facilities
- Acoustic testing services – UKAS Accredited
- Robust Details solutions
- Code For Sustainable Homes solutions
- Easy to install systems
- Direct to site national distribution
- Planning and noise surveys
- Air tightness testing
- SAP and SBEM Calculations
- BREEAM assessments
- EPC's



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# PRODUCTS

**HUSH ACOUSTICS HAVE DEVELOPED AN EXTENSIVE PRODUCT RANGE THAT WILL OFFER SOLUTIONS TO ALL ACOUSTIC PROBLEMS WITHIN THE UK BUILDING INDUSTRY.**

We have developed many floating floor products that range in thickness and performance criteria depending on the application. Our floating floor products include commonly used products like Hush Panel 17 and Hush Panel 28 and then more bespoke products like the Hush Cem Panel 28 and our Hush Panel Premier 48. Check out the full range of floating flooring in the floating floor section of the products half of the brochure.

Still classed as floating flooring, cradle and batten acoustic flooring is a recognised method of installing an acoustic floor and creating a void over the structure to run services or to level out the structural floor if needed. Hush have a unique easy to install cradle that is quick to install without needing to use fiddly packers to build up levels.

We have developed underlay products so that we have a solution for whatever the floor finish may be. This allows Hush to offer solutions to isolate floor finishes like carpet, timber flooring (engineered timber floor, solid timber flooring and parquet) and vinyl flooring.

The joist infill section within the products part of the brochure details the Hush range of products that can be used to reduce sound transmission within the structure. We have a traditional pugging product called Hush Fill 60, still used a lot in Scotland and within existing Edwardian and Georgian type buildings. We then have a mineral fibre insulation called Hush Slab Sound Absorber. All the Hush Systems within the brochure will incorporate one of these joist infill materials.

We have three resilient bar solutions that create a decoupling effect for a ceiling or wall lining which reduces the passage of sound and we have also developed high mass ceiling and wall boards that can be used on these resilient bars to improve on standard plasterboard performances.

Within our rubber materials we have over and under screed materials, barrier mat materials, underlay products and our highest impact reducing product in Hush Mat 15, that has been designed as an underlay for engineered timber flooring.

Our newest range of products designed by Hush is our absorber range. Absorber products are required to reduce reverberation noise within large spaces such as offices, classrooms and multi-purpose halls.

All the Hush products have accessories to ensure they are installed correctly and in accordance with the Hush installation guidelines.

Please enjoy looking through our range of acoustic products and should you require any assistance with picking the right products for the application you are working on then feel free to call the Hush technical department on 0151 933 2026.

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# FLOATING FLOORING

## BROWSE THROUGH OUR HUGE RANGE OF FLOATING FLOORING PANELS

Floating flooring is the industries recognized method of achieving the impact regulations detailed in all UK Building Regulations. Hush have a wide range of acoustic floating floors that have been designed to cater for all flooring requirements. We have a range of thicknesses ranging from 17mm up to 52mm. We have overlay and straight to joist treatments and also have high mass products that achieve higher acoustic ratings and will contribute to airborne performance

levels as well as impact performance levels. We feel we have a complete range of acoustic floating floors and should you require any further information or help in choosing the right floating floor product for the development then contact the Hush technical team on 0151 9332026.

### HUSH PANEL 17



Hush Panel 17 has been designed as a thinner overlay board to minimise floor build where required, without compromising performance. Hush-Panel 17 reduces impact sound transmission through separating floors, achieving excellent results. The upper layer of moisture resistant MDF provides a uniformly smooth surface for application of floor finishes.

#### ACOUSTIC PERFORMANCE

Impact $L'_{nt,w}$ dB	Airborne $D_{nt,w}$ dB	Airborne $D_{nt,w} + C_{tr}$ dB
56	55	48

Based on a recommended system incorporating Hush-Panel 17 over new floorboards .

#### SPECIFICATION

- Can be laid over existing or new concrete and timber floors.
- Comprises 9mm Moisture Resistant tongued and grooved MDF with 10mm Hushfelt™ resilient layer
- Overall Board Dimensions 1200mm x 600mm x 17mm
- Overall nominal thickness 19mm
- FFL over floor deck 17mm

#### FEATURES

- ✓ Excellent acoustic performance
- ✓ Ideal for areas with limited room height
- ✓ Refurbishment and New Build
- ✓ Compatible with a range of Hush-Systems
- ✓ Can be used as part of a Code For Sustainable Homes compliant development
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT5 compliant for floor structures EFC-1, EFC-2 and EFS-1

### HUSH PANEL 23



Hush Panel 23 has been designed as a thin overlay solution to reduce impact sound through concrete and other masonry structures. Masonry constructions achieve good levels of airborne sound reduction due to their mass but will fail the impact performance criteria set out in the Building Regulations without a suitable acoustic floor deck. The Hush Panel 23 has been designed with this in mind.

It is a thin and economical solution for achieving the impact regulations over masonry structures.

#### ACOUSTIC PERFORMANCE

Impact $L'_{nt,w}$ dB	Airborne $D_{nt,w}$ dB	Airborne $D_{nt,w} + C_{tr}$ dB
45	62	55

Results based on Hush Panel 23 being laid over a concrete structure, with a suitable ceiling treatment and all flanking paths removed.

#### SPECIFICATION

- An acoustic floor deck to be used as an overlay solution to concrete structures.
- Comprises of 18mm P5 moisture resistant T&G chipboard and a 5mm Hushfelt resilient layer
- Overall board dimensions 2400 x 600 x 23mm
- FFL level over concrete structure is 21mm

#### FEATURES

- ✓ Economical acoustic floating floorboard
- ✓ To be used in new build developments with concrete floors
- ✓ Building Regulations compliant for Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used as part of a Code For Sustainable Homes specification
- ✓ Compliant with Robust Details criteria
- ✓ Can be used with all floor finishes as long as the correct practices are followed
- ✓ A peel clean version can be available on request

## HUSH PANEL 28



Hush-Panel 28 has been designed as a versatile impact reducing floor panel that can be used as a structural or an overlay board.

When used as an overlay board the Hushfelt™ resilient layer can take care of minor undulations of the floor surface.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
55	55	49

Results based on 200mm timber joists at 450mm centres.

### SPECIFICATION

- Can be laid over concrete, existing timber floors or directly over joists up to 450mm centres\*
- Comprises 18mm High Density P5 Moisture Resistant tongued and grooved chipboard with 10mm Hushfelt™ resilient layer
- Overall Board Dimensions 2400mm x 600mm x 28mm
- Overall nominal thickness 28mm
- FFL over floor deck 26mm
- FFL over timber joists \*36mm (used in conjunction with Hush-10 Joist Strip)

### FEATURES

- ✓ Versatile and economical
- ✓ Refurbishment and New Build
- ✓ Compatible with a range of Hush-Systems
- ✓ Can be used as part of a Code For Sustainable Homes compliant development
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT5 compliant for floor structures EFC-1, EFC-2 and EFS-1
- ✓ Ideal for ceramic tiling in conjunction with Permalayer
- ✓ Easy to install in a single time saving operation
- ✓ A Peel Clean version is now available to allow for spotless handovers

## HUSH PLY 28



Hush-Ply 28 has been designed as an impact reducing floor panel that can be used as a structural or an overlay board. Offering an alternative to the standard chipboard finish, Hush-Ply 28 is especially suitable for areas requiring extra moisture protection, such as kitchens and bathrooms and offers an excellent surface for application of the final flooring finish, whether using ceramic tiles or wooden flooring.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
55	55	49

Results based on Hush Panel 23 being laid over a concrete structure, with a suitable ceiling treatment and all flanking paths removed.

### SPECIFICATION

- Can be laid over concrete, existing timber floors or directly over joists up to 450mm centres\*
- Comprises 18mm WBP tongued and grooved plywood with 10mm Hushfelt™ resilient layer
- Overall Board Dimensions 2400mm x 600mm x 28mm
- Overall nominal thickness 28mm
- FFL over floor deck 26mm
- FFL over timber joists \*36mm (used in conjunction with Hush-10 Joist Strip)

### FEATURES

- ✓ Strong, durable and waterproof
- ✓ Ideal for flooring finishes which require screw fixings
- ✓ Refurbishment and New Build
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Can be used as part of a Code For Sustainable Homes compliant development
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT5 compliant for floor structures EFC-1, EFC-2 and EFS-1
- ✓ Easy to install in a single time saving operation





## HUSH PANEL CEM 28



Hush Panel Cem 28 is a high mass acoustic floorboard that has been developed to increase both airborne and impact acoustic performance when used in an existing construction that is deemed to be very lightweight. By adding high amounts of mass to a lightweight construction the airborne noise performance is increased, something that doesn't normally occur when standard acoustic flooring is used.

Hush-Panel Cem 28 comprises of an 18mm tongued and grooved cement particle board and our Hush Felt 10 resilient layer. The Hush-Panel Cem 28 should be laid in the conventional broken bond pattern with all T&G joints glued using the Hush Cem Adhesive. The Hush Seal 20 or range of Hush flanking strips should be used to isolate the perimeters of the board.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
56	61	57

Results based on Hush Panel 23 being laid over a concrete structure, with a suitable ceiling treatment and all flanking paths removed.

### SPECIFICATION

- Overall Board Dimensions 1200 x 600 x 28mm -- 0.72m<sup>2</sup>
- Weight per m<sup>2</sup>: 24.00kg
- Weight per board: 17.30kg
- Thermal Conductivity: 0.26 W/m.k
- Board Surface is Class 'O' Fire Rated
- Hush-Panel Cem joints must be glued using the Hush Cem Adhesive
- Hush-Panel Cem perimeters to be sealed using the Hush Seal 20 or Hush Flanking Strips

### FEATURES

- ✓ High Mass Acoustic Flooring to improve both Airborne and Impact noise issues
- ✓ Excellent Acoustic Performance
- ✓ Very stable surface to carry many floor finishes
- ✓ Document E compliant (England & Wales), Section 5 compliant (Scotland), Part G compliant (Northern Ireland)
- ✓ Can be used to as part of a Code For Sustainable Homes compliant specification
- ✓ Can be used to form a Robust Details compliant system
- ✓ Improves Airborne acoustic performance as a flooring product

## HUSH PANEL 32



Hush-Panel 32 has been designed as an impact reducing floor panel, with added rigidity, that can be used as a structural or an overlay board. When used as a structural floor the stiffness of the upper layer accommodates wider joist centres, up to 600mm. A combination of the increase in mass and the Hushfelt™ resilient layer can produce superior results when used as part of a sound insulation system for separating floors.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
52	58	53

Results based on Hush Panel 23 being laid over a concrete structure, with a suitable ceiling treatment and all flanking paths removed.

### SPECIFICATION

- Can be laid over concrete, existing timber floors or directly over joists up to 600mm\*
- Comprises 22mm High Density P5 Moisture Resistant tongued and grooved chipboard with 10mm Hushfelt™ resilient layer
- Overall Board Dimensions 2400mm x 600mm x 32mm
- Overall nominal thickness 32mm
- FFL over floor deck 30mm
- FFL over timber joists \*40mm (used in conjunction with Hush-10 Joist Strip)

### FEATURES

- ✓ Versatile and economical
- ✓ Refurbishment and New Build
- ✓ Suitable for wider joist centres
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Can be used as part of a Code For Sustainable Homes compliant development
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT<sub>5</sub> compliant for floor structures EFC-1, EFC-2 and EFS-1
- ✓ Easy to install in a single time saving operation





## HUSH PANEL 33



Hush Panel 33 has been designed as a versatile but high performing acoustic flooring to be used in timber frame development. The unique combination of Eco-Friendly acoustic felt and rubber barrier mat make the product perform to all UK Building Regulations Requirements whether this be Approved Document E (England & Wales), Section 5 (Scotland) or Part G (Northern Ireland).

Not only does this high impact performing acoustic flooring achieve the UK Building Regulations standards but it also achieves Robust Details performance targets for timber frame development. Hush-Panel 33 unique composition makes it very easy to install and quick to use.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
48	58	56

Results based on Hush Panel 23 being laid over a concrete structure, with a suitable ceiling treatment and all flanking paths removed.

### SPECIFICATION

- High performing acoustic flooring for use within timber frame developments
- Comprises of 18mm High Density P5 Moisture Resistant Chipboard with 10mm Hushfelt™ Resilient Layer and a 5mm Hush Barrier Mat.
- Overall Board Dimensions 2400x600x33mm
- Overall nominal thickness 33mm
- Board density 26 kg per board
- Must be used with the Hush RD Flanking Strip
- The board joints to be bonded with Hush Bond Panel Adhesive

### FEATURES

- ✓ Versatile and economical
- ✓ Refurbishment and New Build
- ✓ Compatible with a range of Hush-Systems
- ✓ Can be used as part of a Code For Sustainable Homes compliant development
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can achieve Robust Details Performance levels on timber frame development
- ✓ Easy to install in a single time saving operation
- ✓ A Peel Clean version is now available to allow for spotless handovers

## HUSH PANEL 37



Hush Panel 37 has been designed as a versatile and high performing acoustic flooring product to be used in conjunction with timber structures. The unique combination of Eco-Friendly acoustic felt and rubber barrier matting make the product perform to all UK Building Regulations whether this be Approved Document E (England & Wales), Section 5 (Scotland) or Part G (Northern Ireland). Not only does this high impact performing acoustic flooring achieve all UK Building Regulations Standards but it also achieves Robust Details performance targets for timber frame development. Hush Panel 37 can be laid in a overlay or straight to joist application. Hush Panel 37's unique composition makes it very easy to install and quick to use.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
48	58	56

Results based on Hush-Panel 37 being used within a timber frame application

### SPECIFICATION

- High performing acoustic flooring of use within developments with timber structures
- Comprises of 22mm High Density P5 Moisture Resistant Chipboard with 10mm Hushfelt™ Resilient Layer and a 5mm Hush Barrier Mat.
- Overall Board Dimensions 2400x600x37mm
- Overall nominal thickness 37mm
- Board density 28 kg per board.
- Must be used with the Hush RD Flanking Strip
- The board joints to be bonded with Hush Bond Panel Adhesive

### FEATURES

- ✓ Versatile and economical
- ✓ Refurbishment and New Build
- ✓ Compatible with a range of Hush-Systems
- ✓ Can be used as part of a Code For Sustainable Homes compliant development
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can achieve Robust Details Performance levels on timber frame development
- ✓ Easy to install in a single time saving operation
- ✓ A Peel Clean version is now available to allow for spotless handovers

We pride ourselves in making sure all of our products are manufactured to the highest standards



## HUSH PANEL PREMIER 48



Hush Panel 48 has been designed to enable an increase in floor height within refurbishment and new build projects. The combination of the Hushslab30™ resilient layer to the underside and high density upper layer offers excellent acoustic qualities. The resilient layer can also take care of minor undulations of the floor surface.

### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
54	49

\*based on Hush-System Premier incorporating Hush-Panel Premier 48 over TJI metal lattice joists

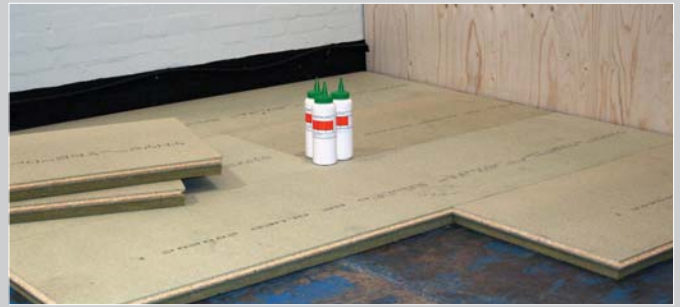
### SPECIFICATION

- Can be laid over existing and new concrete or timber floors
- Comprises 18mm High Density P5 Moisture Resistant TG4 chipboard panels and a 30mm acoustic resilient layer of Hushslab30™ factory bonded to the underside.
- Overall Board Dimensions 2400mm x 600mm x 48mm
- Overall nominal thickness 48mm
- FFL over concrete or timber deck 48mm

### FEATURES

- ✓ Excellent impact protection
- ✓ Refurbishment and New Build
- ✓ Ideal for increasing floor height whilst upgrading floors
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT5 compliant for floor structures EFC-1, EFC-2 and EFS-1
- ✓ Easy to install in a single time saving operation
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Can be used as part of a Code For Sustainable Homes compliant development

## HUSH PANEL PREMIER 52



Hush Panel 52 has been designed specifically to combine two core components, required to comply with Robust Details FFT4 over concrete and steel and as an alternative floating floor solution to the traditional FFT-1 floor finish in timber frame development.

Hush-Panel 52 is also ideal for increasing floor height within refurbishment projects where pre-completion testing is required. The Hushslab 30™ layer to the underside has excellent acoustic properties which can also take care of minor undulations of the floor surface.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
51	63	55

Based on a recommended system incorporating Hush-Panel 52 over new floorboards

### SPECIFICATION

- Can be used over new and existing timber and concrete floors
- Comprises of 22mm High Density P5 Moisture Resistant TG4 chipboard panels and a 30mm acoustic resilient layer of Hushslab30™ factory bonded to the underside.
- Overall Board Dimensions 2400mm x 600mm x 52mm
- Overall nominal thickness 52mm
- FFL over concrete or timber deck 52mm

### FEATURES

- ✓ Excellent impact protection
- ✓ Refurbishment and New Build
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT4 compliant for floor structures EFC-1, EFC-2 and EFS-1
- ✓ Can be used as part of the Hush-System TF (HD1029) which is an alternative to the original FFT-1 floating floor system in Robust Details EFT-1.
- ✓ Easy to install in a single time saving operation
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Can be used as part of a Code For Sustainable Homes compliant development

Call one of our team today on 0151 933 2026 for more information about our wide range of floating flooring products





# JOIST INFILLS

## HUSH MANUFACTURE TWO DIFFERENT PRODUCT RANGES TO GO WITHIN TIMBER JOISTED CONSTRUCTION.

The first is our Hush Slab Sound Absorber and the second is our Hush Fill 60 Heavy Pugging. Hush Slab is a mineral fibre insulation that has been manufactured to the optimum density (a mineral fibre can be) for sound absorption. Hush Slab is used in the majority of our standard details and is a crucial component in ensuring any development meets the required acoustic rating.

Hush Fill 60 is a take on the traditional pugging infills. Still used a lot to acoustically treat floors in existing buildings in Scotland and then in Victorian/Edwardian style buildings in London. Hush Fill is the highest performing joist infill on the market for creating a high mass barrier against transmitting airborne sound.

## HUSH SLAB 100 SOUND ABSORBER

Hush Slab 100 has been developed to reduce airborne sound transmission through separating floors, ceilings and walls within both new build and refurbishment projects and is manufactured by a unique process, utilising renewable energy and a sustainable source of raw material. Hush-Slab 100 provides excellent acoustic performance, reducing airborne sound as part of a recommended sound insulating system for separating floors, ceilings or walls.



### ACOUSTIC PERFORMANCE

All Hush acoustic systems have been tested with the Hush-Slab sound absorber. All acoustic figures displayed for the Hush-Systems are achieved because of how all the elements work together to achieve an overall acoustic rating. Therefore Hush-Slab is an integral element of all Hush-Systems and if it is removed will effect the acoustic results displayed. Therefore Hush-Slab must be used in all Hush-Systems to ensure compliance with the regulations.

Thicknesses available mm	Thermal Conductivity W/mK	Thermal resistance m <sup>2</sup> K/W	Slab size mm	Slabs per pack	Area per pack m <sup>2</sup>
100	0.035	2.85	1200x600	5	3.6
75	0.035	2.10	1200x600	6	4.32
50	0.035	1.40	1200x600	10	7.2
25	0.035	0.70	1200x600	20	14.4

### PRODUCT DATA

- In between floor and ceiling joists and wall studs to suit system requirements
- Comprises High density mineral fibre produced from non-combustible inorganic rock, it is defined as 'mineral wool' in BS 3533 and complies fully with the recommendations of BS 5422 and BS 3958: Part 5
- Durability will not encourage the growth of fungi, mould or bacteria, does not sustain vermin, is rot-proof, odourless and completely non-hygroscopic
- Fire Performance Non-combustible, Class 'O' to Building Regulations achieving both a Class 1 Spread of Flame to BS 476: Part 7 and the required indices of performance of fire propagation to BS 476: Part 6

### FEATURES

- ✓ A unique high density sound insulating slab available in varying thicknesses to suit many applications
- ✓ Excellent acoustic and thermal properties
- ✓ Non-combustible; Class 'O' fire rating
- ✓ Used extensively within refurbishment and new build projects to reduce airborne sound through system designed floor, ceiling and wall structures
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used as part of Robust Details floor and wall systems
- ✓ Can be used as part of a Code For Sustainable Homes development
- ✓ Simple to cut and install





## HUSH FILL 60 HEAVY PUGGING



Hush-Fill 60 Heavy Pugging is a granular mineral filler specifically designed to meet the required density of 80kg/m<sup>2</sup> at the 60mm regulation depth specified within UK Building Regulations for sound insulation between timber floor joists.

### SAFETY

Joist loadings must always be checked by a structural engineer prior to specification or use. Hush-Fill 60 must never be installed directly onto a plasterboard or lath and plaster ceiling, supporting shelves should be constructed – see fitting instructions available online at [www.hushacoustics.co.uk](http://www.hushacoustics.co.uk)

Hush-Fill 60 tubes weigh approximately 25kg each and care must be taken when manually handling and lifting.

### ACOUSTIC PERFORMANCE

Impact L' <sub>nT,w</sub> dB	Airborne D <sub>nT,w</sub> dB	Airborne D <sub>nT,w</sub> + C <sub>tr</sub> dB
48	64	53

Results based on Hush-System 1 test results

### SPECIFICATION

- Application in between joists, supported by plywood screwed to the underside of the joists or on a shelf constructed between the joists. Joist loadings must be checked by a qualified person prior to specification.
- Comprises 2-10mm dry mineral fill, packed in sealed polythene tubes.
- Tube Dimensions Approx. 1100mm long x 150mm diameter
- Weight per m<sup>2</sup> - 80 kgs at required 60mm depth for UK Building Regulations
- Weight per tube Approx. 25 kgs
- Overall nominal thickness - 60mm at required depth for UK Building Regulations (3.2 tubes per m<sup>2</sup>)

### FEATURES

- ✓ Traditional method ideal for restricted projects such as upgrading listed buildings
- ✓ Allows all work to be carried out from above
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Easy and accurate installation
- ✓ Traditional method of reducing the transmission of airborne sound between timber separating floors within refurbishment projects
- ✓ Upgrades the airborne performance of separating floors whilst allowing decorative lath and plaster ceilings to remain intact

“ LOCAL AND DEPENDABLE, HUSH ACOUSTICS ALWAYS HELP OUT ”  
 – LOCAL BUILDING CONTROL



# JOIST STRIPS

## ACOUSTIC JOIST STRIPS ARE A SIMPLE WAY OF BREAKING THE CONNECTIONS FROM A STRUCTURAL DECK TO THE JOISTED STRUCTURE.

Joist Strip solutions are normally used in domestic situations as an improvement to impact noise reduction. However, they can also be used in specialist situations such as listed buildings or as part of an

acoustic floor system that includes underfloor heating trays between the joists. The only joist strip that should be used on a separating floor between two separate dwellings (that will be tested and is not specialist circumstances) is the Hush Felt 25. We can offer advice on the right posit strip solution for your development. Please call the Hush technical team on 01519332026.

## HUSH FELT 25 RESILIENT JOIST STRIP



Hush-Felt 25 has been designed as a joist treatment offering an economical alternative to composite floating flooring without compromising on performance. The integral hardboard slats present a firm, smooth surface to support a choice of chipboard, OSB or plywood T&G flooring boards.

### ACOUSTIC PERFORMANCE

Impact $L'_{nt,w}$ dB	Airborne $D_{nt,w}$ dB	Airborne $D_{nt,w} + C_{tr}$ dB
50	58	52

Results based on Hush-System HF25 Advanced test results incorporating Hush-Felt 25 Resilient Joist Strips

### SPECIFICATION

- To be used in a direct to joist application
- Comprises of 140mmx50mm hardboard slats fixed to a double layer of 10mm Hushfelt™ resilient layer
- Overall Strip Dimensions 25mm deep x 50mm wide
- Overall nominal thickness 25mm
- Overall thickness in use 20-21 mm

### FEATURES

- ✓ Excellent impact protection
- ✓ Refurbishment and New Build
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT<sub>4</sub> compliant for floor structures EFC-1, EFC-2 and EFS-1
- ✓ Can be used as part of the Hush-System TF (HD1029) which is an alternative to the original FFT-1 floating floor system in Robust Details EFT-1.
- ✓ Easy to install in a single time saving operation
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Can be used as part of a Code For Sustainable Homes compliant development

## HUSH - DF 10 JOIST STRIP



Hush-10 joist strips have been designed as an economical acoustic layer to be used to the top of joisted construction and under timber floors. The Hush-10 joist strip is a thin solution that is simply stapled to the top of the joists to reduce impact sound transmission through timber internal floors. When used in conjunction with the Hush slab 100 between the joists and the correct plasterboard lining it complies with the internal floor airborne regulations of 40 dB (RW) stated in Document E (England & Wales) and 43 dB (RW) stated in Section 5 (Scotland).

### ACOUSTIC PERFORMANCE

Can be used as part of a system to achieve the internal floor regulations set out in the building regulations. These are 40 dB (RW) in Document E (England & Wales) and 43 dB (RW) stated in Section 5 (Scotland).

### SPECIFICATION

- Stapled directly on to timber joists or glued on to metal joists as part of a Hush internal floor construction to meet the internal floor regulations set out in Document E (England & Wales) and Section 5 (Scotland)
- 10mm thick x 50mm wide x 1.37m long
- Nominal thickness of 10mm. Will compress to 8mm in use.

### FEATURES

- ✓ Thin solution for isolating timber floors from joists
- ✓ Excellent impact reduction
- ✓ Easy to install
- ✓ Improves acoustic performance in domestic dwellings
- ✓ To be used with the Hush Slab 100 and suitable ceiling lining to achieve the internal floor regulations of Document E (England & Wales) and Section 5 (Scotland)

## HUSH RESILIENT SEATINGS JOIST STRIP



Hush Resilient Seating Joist Strips have been designed with the sole purpose of isolating the joist tops but remain rigid to prevent movement in the floors. There are certain applications that occur that require an acoustic system to isolate the top of the joisted structure but can't compress or deflect under load due to the finishes that will be used over it. Hush Resilient Seatings are manufactured from land bearing rubber materials to prevent any movement or deflection. Should you have concerns about the floor finishes and the moment in the acoustic material then the Hush Resilient Seatings will be the answer.

### SPECIFICATION

- Material - Recycled Fine Rubber Granulate bonded with a cold-cure PUR
- Appearance - Fine Black
- Standard Product Length - 1250mm
- Material Thicknesses - 3-10mm
- Standard Width - 100mm, 150mm, 200mm

### FEATURES

- ✓ Improves Structural Acoustic Performance
- ✓ Ensures Reduction In Flanking Noise Transmission
- ✓ Helps to ensure compliance to all UK Building Regulations
- ✓ Helps to ensure compliance to Code For Sustainable Homes

### TOLERANCES

- Mass density  $\text{kg/m}^3$  930  $\text{kg/m}^3 \pm 5\%$  (DIN EN ISO 845)
- Dimensional Tolerances:  $\pm 1.5\%$  (DIN 7715-2 M4)
- Material thickness: 3 – 10mm  $\pm 0.3\text{mm}$  - other dimensions on request
- Friction co-efficient  $>0.6\mu$  (VDI 2700)
- Tensile strength: 1.0 MPa (average) (DIN EN ISO 1798)
- Elongation at break: 53% (average) (DIN EN ISO 1798)
- Compression at 10%  
Pressure: 0.88 MPa  
E-Module 10.5 MPa (DIN 53421)
- Compression test According  
C<sub>25</sub> 1508 kPa (DIN EN ISO 3386-2)  
C<sub>40</sub> 3833 kPa  
C<sub>50</sub> 7343 kPa
- Temperature stability: -40 bis + 110°C
- Fire Classification: B2 (DIN 4102-1 Section 6.2)
- Date: 11/2008 (No update requirement)

## ISOLATION TAPE



Hush Self Adhesive Isolation Tape can be used as a high performing joist strip to isolate structures.

The Isolation Tape has a strong composition to prevent too much movement in the floor and has a self adhesive backing making it easy for the contractor to install on site.

This multi-function product started its life isolating stud walls from the floor and ceiling structure. However, due to the excellent acoustic properties and the fantastic composition we use it to isolate tops of joists and to break the connection from the structural deck.

### ACOUSTIC PERFORMANCE

To be used to isolate the tops of the joists and to break all direct connections from the structural deck.

### SPECIFICATION

- To be used as a joist strip solution to the tops of joists..
- 10m rolls x 50mm or 100mm widths x 8mm thick
- Supplied to the nearest roll as required
- Self Adhesive one side
- Supplied in 50mm and 100mm widths

### FEATURES

- ✓ Self Adhesive backing to one side making it very simply and easy to install
- ✓ Helps break direct sound transmission paths through timber joisted floors.
- ✓ Helps for compliance for all UK Building Regulations for sound transmission
- ✓ Helps achieve Code For Sustainable Homes compliance
- ✓ 50mm and 100mm widths
- ✓ Economical product
- ✓ Quick and Easy to install



**EXCELLENT PRODUCTS AND SPECIFICATION THAT ALLOWED OUR DEVELOPMENT TO ACHIEVE STANDARDS THAT WE STRIVE FOR**

**– LIONCREST HOMES**





# FLOORING BATTENS & CRADLES

## HUSH HAVE A RANGE OF COMPOSITE ACOUSTIC BATTENS AND A PATENTED UNIQUE CRADLE SYSTEM TO CREATE A RAISED ACOUSTIC FLOOR OR LEVEL OUT AN UNEVEN SURFACE.

Our composite acoustic batten range includes the Hush Batten 55 and the Hush Batten 70. The standard depth of an acoustic batten for masonry separating floor construction is 55mm and the standard depth of an acoustic batten for timber frame construction is 75mm. We cover both these requirements. However, we are unique in the

fact that we can manufacture acoustic battens to any bespoke depth should you need us to.

Our Hush Adjustable Acoustic Cradle is a unique patented product that has been designed to level out uneven separating floors without the use of fiddly packers or shims. This is a labour saving system for any floor fitter making any development run smoother and quicker. From the success of the Hush Adjustable Cradle we developed a version that can be used externally to carry timber decking. This is the Hush Decking Cradle.

## HUSH CRADLE

Hush Cradles have been designed as a timber batten support with an infinitely adjustable thread, allowing for precise levelling across uneven sub-floors without the use of fiddly packers.



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
50	58	53

Results based on a recommended system incorporating Hush-Cradles over existing floorboards.

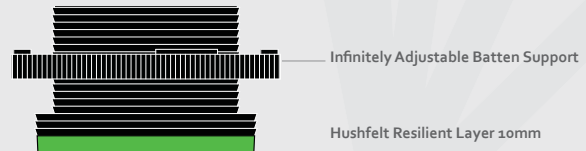
### SPECIFICATION

- Can be laid over concrete or timber
- Comprises of a 60mm deep x 90mm diameter glass filled nylon cradle with 'O' support ring bonded to the 10mm Hushfelt resilient layer
- Overall Cradle Dimensions 90mm diameter x 70mm high
- Overall adjustment 15mm - 60mm above structural base
- Cradle Base Thickness 15mm

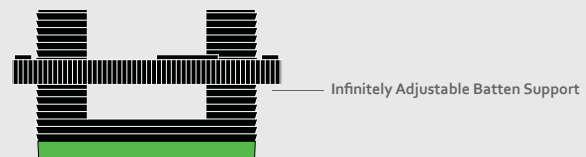
### FEATURES

- ✓ Unique patented design
- ✓ Ideal for uneven floor surfaces - no fiddly packers required, labour costs much reduced
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT<sub>2</sub> compliant for floor structures EFC-1, EFC-2, EFC-7 and EFS-1
- ✓ Rapid installation time
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Can be used as part of a Code For Sustainable Homes compliant development

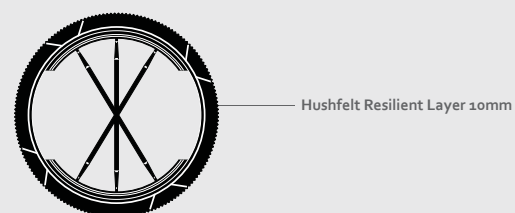
### HUSH CRADLE FRONT VIEW



### HUSH CRADLE SIDE VIEW



### HUSH CRADLE PLAN VIEW





## HUSH DECKING CRADLE



Hush Acoustic Decking Cradles are used to create a unique self levelling support system for decking areas.

This unique patented product has been fully assessed and tested at Swansea University Materials Centre of Excellence and conforms to the loading conditions for the flooring as laid down in BS5399.

The Hush Acoustic Roof and Decking Cradle is the ideal solution for supporting timber joists for decking purposes on balconies and roof terraces. The unique recycled plastic body is designed to support joists keeping them off the roof deck and away from the drainage of the roof.

The Cradle is designed with a cellular rubber base support to help spreads and soften impact noise and also the impact of the imposed load. This unique Cradle is easy to install and can be adjusted to allow for falls on a roof

### SPECIFICATION

- Staped directly on to timber joists or glued on to metal joists as part of a Hush internal floor construction to meet the internal floor regulations set out in Document E (England & Wales) and Section 5 (Scotland)
- 10mm thick x 50mm wide x 1.37m long
- Nominal thickness of 10mm. Will compress to 8mm in use.
- Can be laid over concrete or timber
- Comprises of a 60mm deep x 90mm diameter glass filled nylon cradle with 'O' support ring bonded to the 10mm Hushfelt resilient layer
- Overall Cradle Dimensions 90mm diameter x 70mm high
- Overall adjustment 15mm - 60mm above structural base
- Cradle Base Thickness 15mm

### FEATURES

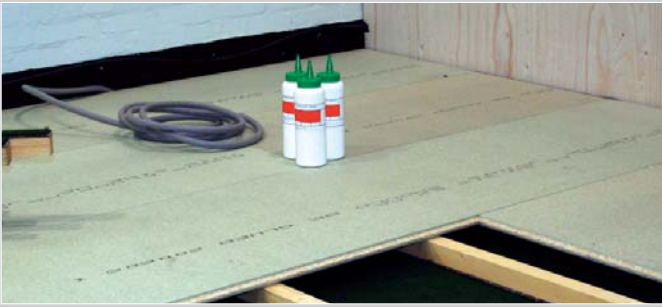
- ✓ Unique patented design
- ✓ No packers required
- ✓ Can be used to level the decking area
- ✓ Quick and easy to install
- ✓ Product is not effected by the elements
- ✓ Ensures acoustic performance on decking areas

“ DELIVERY SCHEDULE WAS TIGHT ON THIS SITE AND HUSH PROVIDED AN EXCELLENT SERVICE TO FIT IN WITH US. THE HUSH PANEL 28 PRODUCT IS ONE WE HAVE CONTINUED TO USE ”

– VASCROFT



## HUSH BATTEN 55



Hush Batten 55 has been designed as a resilient composite batten used to enable the construction of a service void, whilst reducing impact sound transmission and providing long lasting support for floating timber or chipboard floors.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
56	56	47

Results based on Hush-Batten System test results incorporating Hush-Batten 55 Resilient Flooring Battens

### SPECIFICATION

- Can be laid over timber or concrete floors
- Comprises of 45mmx45mmx1800mm long treated timber and the 10mm Hushfelt™ resilient layer
- Overall Batten Dimensions 55mm deep x 45mm wide x 1800mm long
- Overall nominal depth 55mm
- Maximum centres 450mm using 18mm chipboard/timber flooring  
600mm using 22mm chipboard/timber flooring

### FEATURES

- ✓ For use in many situations requiring impact sound insulation between separating floors.
- ✓ Creates a service void, ideal for use with under floor heating systems
- ✓ Upgrades concrete floors less than 300 kg per m<sup>2</sup> mass per unit area when used in conjunction with Hush-Felt 10 Resilient Layer. (see Hush acoustic systems)
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT<sub>3</sub> compliant for floor structures EFC-1, EFC-2 and EFS-1
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Can be used as part of a Code For Sustainable Homes compliant development

## HUSH BATTEN 70



Hush-Batten 70 has been designed as a resilient composite batten that reduces impact sound transmission between separating floors. Hush-Batten 70 allows the construction of a spacious service void and provides long lasting support for floating timber or chipboard floors.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
55	63	56

Results based on Hush-Batten System HD1035 incorporating Hush-Batten 70 Resilient Flooring Battens

### SPECIFICATION

- Can be laid over timber or concrete floors
- Comprises of 65mmx45mmx1800mm treated timber battens bonded to 10mm Hushfelt™ resilient layer
- Overall Batten Dimensions 75mm deep x 45mm wide x 1800mm long
- Overall nominal depth 75mm
- Maximum Centres 450mm using 18mm chipboard/timber flooring 600mm using 22mm chipboard/timber flooring Or as per Robust Details criteria

### FEATURES

- ✓ Ideal for timber frame development
- ✓ A deep batten for use in many situations requiring impact sound insulation between separating floors.
- ✓ Provides a minimum 70mm void as required for Robust Details
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Robust Details FFT<sub>1</sub> compliant for floor structures EFC-1, EFC-2, EFS-1, EFS-2, EFT-1, EFT-2 and EFT-3
- ✓ Always manufactured from high quality selected timber
- ✓ Can be tiled over if used with Permalayer and a flexible adhesive
- ✓ Can be used as part of a Code For Sustainable Homes compliant development





# CEILING AND WALL BARS

## THERE ARE A NUMBER OF RESILIENT BAR SOLUTIONS IN THE HUSH RANGE OF PRODUCTS DUE TO THE IMPORTANCE AND FUNCTION OF A RESILIENT BAR.

Resilient Bars are designed to virtually decouple a wall or ceiling lining and remove all direct sound transmission paths. Hush have the Hush Bar Resilient Bar, Hush Bar Deep Resilient Bar and the Hush Bar Plus System to cater for any eventuality on site. Achieving any acoustic requirement is virtually impossible if direct connections are not removed within a structure/construction. Hush Resilient Bars are

used to decouple acoustic linings within separating floor to ceiling construction and separating wall construction.

We have a number of resilient bars that achieve different acoustic performance levels and bars that can suspend higher loadings. It is crucial to specify the correct resilient bar for the correct application and due to our vast range of resilient bars we believe we should have all eventualities covered.

## HUSH BAR PLUS SYSTEM

Hush-Bar Plus system has been designed as an advanced resilient bar and clip system used to further optimise acoustic performance by mechanical decoupling and creating a more flexible ceiling, whilst being able to support heavier ceiling boards.



### PROFILE



### FEATURES

- ✓ A unique ceiling system that increases acoustic performance from standard resilient bar systems
- ✓ Superb acoustic performance
- ✓ Used within refurbishment and new build projects as part of a sound insulation system for separating ceilings
- ✓ Reduces both airborne and impact sound transmission
- ✓ Suitable for suspending up to 50kg/m<sup>2</sup>
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used as part of a Robust Details Ceiling system
- ✓ Can be used as part of a Code For Sustainable Homes Development
- ✓ Easy to install

### ACOUSTIC PERFORMANCE

Impact L' <sub>nT,w</sub> dB	Airborne D <sub>nT,w</sub> dB	Airborne D <sub>nT,w</sub> + C <sub>tr</sub> dB
50	58	52

Results based on Hush-System HF25 Advanced test results incorporating Hush-Bar Plus System

### SPECIFICATION

- Can be used as a decoupled ceiling system to the underside of timber and metal joisted construction
- Comprises of a decoupling spring clip, a metal bar, connecting sleeves and a perimeter channel
- Overall bar dimensions 2400mm long x 55mm wide by 25mm deep
- Overall system depth (including clips and bar) is 25mm



## HUSH BAR RESILIENT BAR



Hush Bar resilient bars are used to optimise acoustic performance by virtually decoupling a lining from a ceiling or wall structure. By using the Hush-Bars the airborne and impact sound transmission is significantly reduced. The Hush-Bars are one of the most important elements of a system to ensure compliance with the Building Regulations for sound transmission through separating ceilings and walls.

### PROFILE



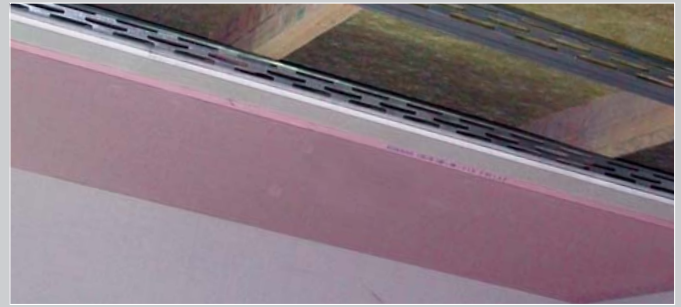
### SPECIFICATION

- To be screw fixed to the underside of timber joists or battens at 600mm centres
- Can be screw fixed to timber and metal stud walls at 450mm centres
- Comprises of metal bars
- Overall depth 16mm
- Overall Bar Dimensions 2400mm long x 65mm wide x 16mm deep

### FEATURES

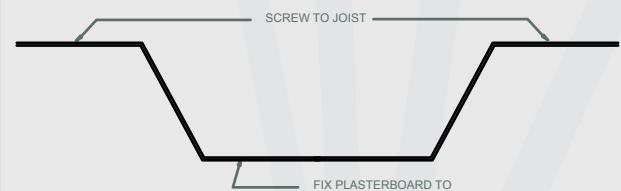
- ✓ Excellent acoustic performance
- ✓ Used extensively within refurbishment and new build projects as part of a sound insulation system for separating ceilings and walls
- ✓ Suitable for suspending up to 30kg/m<sup>2</sup>
- ✓ Reduces airborne sound transmission
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used as part of Robust Details ceiling systems
- ✓ Can be used as part of a Code For Sustainable Homes development
- ✓ Easy to install

## HUSH BAR DEEP RESILIENT BAR



Hush bars are used to optimise acoustic performance by virtually decoupling a ceiling or wall lining from its structure. This significantly reduces sound transmission through the floor, ceiling and wall structures. The Hush-Bar Deep resilient bar creates a larger void within a construction and allows high mass boards to be used. The Hush-Bar Deep can provide enhanced acoustic performance compared to standard resilient bars when used with a recommended lining.

### PROFILE



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
51	63	55

Results based on Hush-System TF HD1029 which incorporates Hush-Bar Deep resilient bars in a timber frame construction

### SPECIFICATION

- Can be used to the underside of timber and metal joisted construction at 600mm or 450mm centres.
- Can be used on separating timber/metal studwork or masonry walls
- Bar dimensions - 30mm deep x 120mm wide x 2.4m or 3.0m length
- Overall depth of the bar is 30mm
- Comprises of metal bars

### FEATURES

- ✓ Excellent acoustic performance
- ✓ Refurbishment and New Build (particularly Timber Frame structures)
- ✓ Suitable for suspending up to 50kg/m<sup>2</sup>
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used as part of a Robust Detail ceiling system
- ✓ Can be used as part of a Code For Sustainable Homes development
- ✓ Creates a 30mm void to enhance acoustic performance
- ✓ Can be used to form a ceiling or a wall lining to improve acoustic performance
- ✓ Can be used with Hush Multi Panel to improve on standard plasterboard performance
- ✓ Easy to install

**HUSH ACOUSTICS ARE GOOD WITH REFURBISHMENT AND CHANGE OF USE DEVELOPMENTS, ALWAYS MAKE IT SIMPLE.**

– MANCHESTER ARCHITECT

# SUSPENDED CEILINGS

**AS LIKE RESILIENT BARS, SUSPENDED CEILING SYSTEMS CAN BE USED TO REMOVE DIRECT SOUND TRANSMISSION PATHS FROM A FLOOR TO CEILING STRUCTURE.**

Suspended ceilings are our preferred ceiling system when designing to comply with the Build Regulations as we know that introducing voids at ceiling level virtually ensures compliance to the standards. The bigger the voids and separation created within a construction the better it will be acoustically. Therefore the Hush MF Ceiling System would be the first place to start when designing a separating floor to ceiling construction.

## HUSH SUSPENDED CEILINGS

Hush Metal Frame Ceiling System is an accepted method of creating a decoupled acoustic ceiling below a joisted or concrete structure. This is one of the best ways to provide acoustic attenuation where the installation of a lowered ceiling is not a problem. Also allows for service voids to be created at ceiling level.



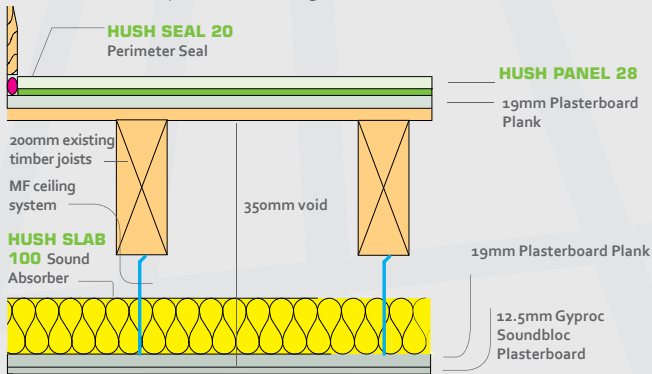
### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
51	56	52

Results based on Hush-System LC HD1036 which incorporates a suspended metal ceiling

### SPECIFICATION

- Comprises metal grid system with acoustic hangers.
- A minimum void of 150mm should be left from the underside of the joists to the back of the plasterboard lining.



### FEATURES

- ✓ Excellent acoustic performance
- ✓ Refurbishment and New Build
- ✓ Can be suitable for suspending up to 70 kg/m<sup>2</sup> if components are used at the correct centres
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Easy to install
- ✓ Can be used as part of a Code For Sustainable Homes specification
- ✓ Can be used as a ceiling treatment within Robust Details specifications
- ✓ Can create a service void at ceiling level
- ✓ Economical ceiling solution





# CEILING AND WALL BOARDS

**THERE ARE CERTAIN CIRCUMSTANCES WHEN DESIGNING SYSTEMS THAT STANDARD PLASTERBOARD SOLUTIONS ARE NOT SUFFICIENT FOR THE APPLICATION AND SOMETHING MORE SPECIALIST IS NEEDED.**

Hush manufacture two specialist wall and ceiling boards for these bespoke situations.

We have our Hush Wallboard which is a composite wall product comprising of two deadening boards separated by rubber dampening strips. This product is used as part of the Hush Wall System. Our second product is the Hush Multi Panel. Hush Multi Panel is a composite panel comprising of a cement particle board and barrier matting. This is the densest board we manufacture and contains the highest mass levels. This board is ideal for improving lightweight structures.

## HUSH MULTI PANEL



Hush Multi Panel is an innovative acoustic multi purpose board that contains high levels of mass to ensure optimum acoustic performance. Hush Multi panel has been designed to ensure ceiling and wall linings can perform to the high acoustic levels required in modern day construction. Hush Multi Panel has been used as part of a decoupled ceiling system on resilient bars or suspended ceilings. It has also been used to great effect in reducing flanking transmission as part of a wall lining system.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
59	62	55

Results based on Hush Multi Panel installed on Hush MF Ceiling System

### SPECIFICATION

- Size = 1180 x 580mm (nominal)
- Thickness = 13mm
- Weight = 19 kg/m<sup>2</sup>

### FEATURES

- ✓ A multi-purpose board to create acoustic wall and ceiling linings
- ✓ Can be used as part of a wall lining system to reduce flanking noise transmission
- ✓ Meets Building Regulations standards for Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Minimal thickness
- ✓ Can be used as part of a Code For Sustainable Homes Specification
- ✓ Can be used as a Robust Detail ceiling or wall board
- ✓ Extremely durable
- ✓ Excellent acoustic performance
- ✓ High mass board to reduce sound transfer
- ✓ Can achieve an hour's fire rated when over boarded with 15mm Fire rated plasterboard.

## HUSH WALL BOARD



The Hush Wallboard has been designed to improve acoustic performance levels from standard plasterboard systems. Substituting standard plasterboard linings with the Hush Wallboard will significantly improve acoustic performance levels. The product has been manufactured with two deadening boards which are separated by visco-elastic dampening strips. The dampening strips decouple one side of the board from the other, reducing direct transmission paths and therefore improves in reducing airborne noise transmission through a wall construction. Hush Wallboard can be used as a wall lining to existing masonry walls (see the Hush Wall Solution HD1040) and can be used to increase mass and separating levels on stud construction. The Hush Wallboard can be skim finished like the standard plasterboard products making it easy to install for a contractor.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
58	48	58

Results based on 100mm timber stud wall

### SPECIFICATION

- Size (nominal) = 1800x900mm
- Thickness (nominal) = 27mm
- Weight = (I need to check this Karen)
- Comprises of two deadening sheets and a visco-elastic separation layer

### FEATURES

- ✓ Improved acoustic performance levels on standard plasterboard systems
- ✓ Can be used in change of use, refurbishment and new build development.
- ✓ To be used as part of the Hush System HD1040
- ✓ Helps comply to all UK Building Regulations for separating walls. Approved Document E (England & Wales), Section 5 (Scotland), Part G (Northern Ireland).
- ✓ Increased mass levels from standard plasterboard solutions
- ✓ Can be plaster skim finished like standard plasterboard linings.
- ✓ Can be used on masonry and stud wall constructions.

# RUBBER MATERIALS

## ACOUSTIC RUBBER MATERIALS ARE A COMMON SOLUTION TO MANY ACOUSTIC PROBLEMS IN THE UK BUILDING INDUSTRY.

Hush offer a full range of products. We have under and over screed solutions, acoustic barrier mats, acoustic underlay, isolation for timber flooring, underlay for vinyl flooring, joist strip solutions, anti-vibration materials and structural isolation solutions.

However, acoustic rubber can be a minefield. Different thicknesses and different densities will effect acoustic performance levels so it is crucial to pick to correct product that is fit for purpose. The Hush rubber materials range of products will cater for any requirement.

## HUSH 5KG/M2 & 10 KG/M2 BARRIER MATS

These are vinyl sound barrier mats loaded with naturally occurring minerals. The products are free of lead, unrefined aromatic oils and bitumen.

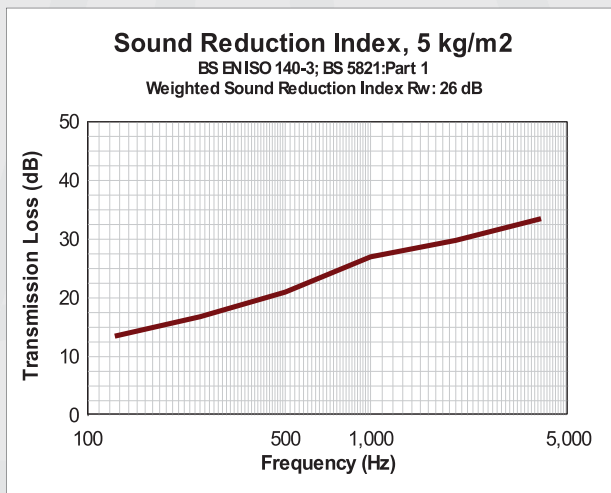
Designed to improve the sound insulation of existing panels of metal, wood, plastic etc., at all frequencies.

The mats are normally fixed in intimate contact with the original panel. Hush barriers are particularly effective in overcoming coincidence dip resonance found in stiff lightweight composites such as plywood sheets and hollow core panels.

### SPECIFICATION

- Colour: Black
- Tensile Strength: 2.6Mpa
- Elongation at Break: 90%
- Flammability: FMVSS 302 Self-extinguishing
- Operating Temperature Range (Static): -30°C to +65°C (some softening)
- Thermally stable for periods upto +93°C

\*Materials are made to weight tolerances



### FEATURES

- ✓ Improves acoustic performance across all frequencies
- ✓ Minimum thickness to ensure no severe increase to the depth of the existing construction
- ✓ Easy to install
- ✓ Versatile and Economical
- ✓ Can be used in New Build and Refurbishment developments
- ✓ Can be used to help achieve all UK Building Regulations including Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used to help achieve Code For Sustainable Homes Development

### HUSH 5 KG/M2 BARRIER MAT

#### SPECIFICATION

- Hardness: 90 Shore A
- Superficial Weight: 5.0Kg/m<sup>2</sup>
- \*Nominal Thickness: 2.0mm

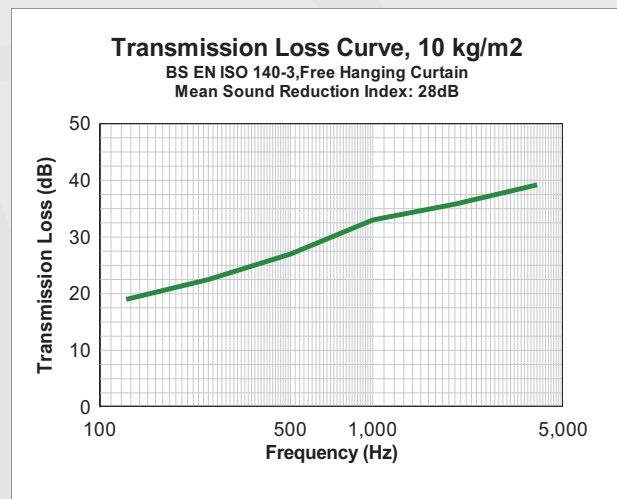
#### ACOUSTIC PERFORMANCE

5kg/m<sup>2</sup> limp barrier

Weighted Sound Reduction Index ( $R_w$ ) = 26 dB

Sound Transmission Class,  $STC$  = 26 dB

### HUSH 10 KG/M2 BARRIER MAT



#### SPECIFICATION

- Superficial Weight: 10.0Kg/m<sup>2</sup>
- \*Nominal Thickness: 4.0mm

#### ACOUSTIC PERFORMANCE

Typical curve for 10Kg m<sup>-2</sup> barrier

Mean Sound Reduction Index: 28 dB

## HUSH FFR RESILIENT UNDERLAY



Hush FFR Resilient Underlay is a fully recycled rubber designed for use with both soft and hard flooring, such as Engineered timber, Laminate, stone flooring and carpet, designed to absorb footfall noise and increase living standards within the construction, whether in residential or commercial applications. The material also has a Zero OPD (Ozone Depleting Potential) and Zero GWP (Global Warming Potential).

The specially selected Rubber particles and fibres are designed to give excellent resilience yet upmost compressive strength.

Hush FFR Resilient Underlay has excellent impact noise performance levels on concrete and timber floors, it is easy to lay and very cost effective.

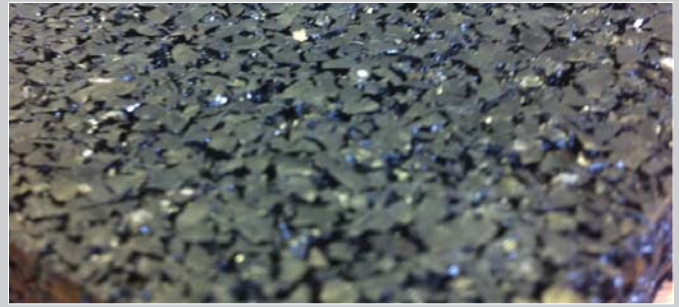
### SPECIFICATION

- Application - Underlay Sound Insulation Flooring
- Material type - Rubber granulate bonded with a cold cure PUR elastomer bonding agent
- Granulate structure - Fine
- Mass density kg/m<sup>3</sup> \*DIN EN ISO 845 - 730 kg/m<sup>3</sup> +/-5%
- Standard dimensions - Rolls: width 1.25m; length varies between 6-10m depending on thickness.
- Dimensional tolerance - 1.5% DIN 7715 Class M4
- Material thickness - 3 - 12 mm
- Test sample (thickness) - 3 mm
- Tensile strength DIN EN ISO 1798 \* - 0.60 MPa
- Elongation at break DIN EN ISO 1798\* - Approx 45 %
- Stress CHARACTERISTICS - CC25 : 646 kPa
- In compression DIN EN ISO 3386-2\*  
CC40 : 2098 kPa, CC50 : 5565 kPa
- Compression test at 10 % DIN 53421\* modules of elasticity - 0,29 MPa, 3,38 MPa
- Footfall Sound Insulation DIN EN ISO 140-8  
- 21 db at 5mm, 18 db at 3mm

### FEATURES

- ✓ Easy to install
- ✓ Unlike cheaper foams, remains continually elastic
- ✓ Fully Recycled
- ✓ Cost effective
- ✓ Suitable under Hard Surfacing and Carpet
- ✓ Document E (England & Wales) Section 5 (Scotland) and Part G (Northern Ireland) compliant
- ✓ Suitable on Timber and Concrete Floors
- ✓ Suitable for Refurbishment & New Build
- ✓ Good Footfall Noise Reduction
- ✓ Good Thermal Conductivity
- ✓ Minimum Construction – Low Floor build-up

## HUSH RESILIENT SEATINGS



Hush Resilient Seatings are load bearing rubber strips that have been designed to isolate timber joisted construction, masonry construction and metal beam construction.

Any connections within a structure will allow the passage of sound. In some cases this passage of sound can cause acoustic test failures. Hush Resilient Seatings are used to isolate the structure and stop this passage of sound. The Hush Resilient Seatings are commonly used in New Build development to ensure flanking transmission is reduced.

Hush Acoustics will specify the Hush Resilient Seatings within a construction should there be a potential issue with flanking noise.

### SPECIFICATION

- Material - Recycled Fine Rubber Granulate bonded with a cold-cure PUR
- Appearance - Fine Black
- Standard Product Length - 1250mm
- Material Thicknesses - 3-10mm
- Standard Width - 100mm, 150mm, 200mm

### FEATURES

- ✓ Improves Structural Acoustic Performance
- ✓ Ensures Reduction In Flanking Noise Transmission
- ✓ Helps to ensure compliance to all UK Building Regulations
- ✓ Helps to ensure compliance to Code For Sustainable Homes

### TOLERANCES

- Mass density kg/m<sup>3</sup> 930 kg/m<sup>3</sup> ± 5% (DIN EN ISO 845)
- Dimensional Tolerances: ± 1.5% (DIN 7715-2 M4)
- Material thickness: 3 – 10mm ± 0.3mm - other dimensions on request
- Friction co-efficient >0.6μ (VDI 2700)
- Tensile strength: 1.0 MPa (average) (DIN EN ISO 1798)
- Elongation at break: 53% (average) (DIN EN ISO 1798)
- Compression at 10%  
Pressure: 0.88 MPa  
E-Module 10.5 MPa (DIN 53421)
- Compression test According  
C<sub>25</sub> 1508 kPa (DIN EN ISO 3386-2)  
C<sub>40</sub> 3833 kPa  
C<sub>50</sub> 7343 kPa
- Temperature stability: -40 bis + 110°C
- Fire Classification: B2 (DIN 4102-1 Section 6.2)
- Date: 11/2008 (No update requirement)

“ I WOULDN'T SPECIFY ANY OTHER ACOUSTIC MATERIALS AS I KNOW HUSH WORKS ”

– ARCHITECTUREM



## HUSH UNDERLAY FOR VINYL FLOORING



Hush Underlay For Vinyl Flooring consists of a fine granulate of recycled rubber with a cork and PU elastomer bonding agent.

Hush Underlay For Vinyl Flooring is suitable for use in most market sectors that require acoustic flooring. These include Residential, Industrial, Healthcare, Educational and Leisure sectors. It can be used over concrete, screeded and timber floors to reduce impact sound before the vinyl floor covering is laid. Hush Underlay For Vinyl Flooring is used in all UK Building Regulations applications including Document E, Section 5 and Part G. It can also be used as an alternative acoustic underlay for Robust Details Developments and has recently been used in Code For Sustainable Homes developments. It Combines Minimum build height with permanent resilience.

Hush Underlay For Vinyl Flooring is manufactured from waste rubber and cork which is mixed with a polymer binder to form a purpose made resilient matting. Hush Underlay For Vinyl Flooring offers exceptional acoustic and insulating qualities.

### SPECIFICATION

- Roll Length/Width: 20m x 1m
- Roll Thickness: 3mm, 4.5mm & 5mm
- M2 Weight : 3mm = 2.05Kgs / 5mm = 3.62Kgs
- Colour: Black/Beige
- Surface: Fine Granulate structure
- Tensile Strength: 0.6 N / mm<sup>2</sup> (DIN 53571)
- Elongation at Break: 3mm approx 50% (DIN 53571) 5mm approx 60% (DIN 53571)
- Density: Approx 390 kg/m<sup>3</sup>
- Service Temp: -30°C to + 80°C
- Flammability Rating: B2
- Environmental Behaviour: Limited resistance to acid
- Impact Sound : 5mm = 21dB, 3mm = 18dB

### FEATURE

- ✓ Easy to Install
- ✓ Remains continually elastic
- ✓ Fully Recycled
- ✓ Minimum Construction Height
- ✓ Suitable to be laid over concrete, screeded and timber floors
- ✓ Complies with all UK Building Regulations Standards. Including Document E, Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Suitable for Refurbishment / New Build
- ✓ For use with Under Floor Heating
- ✓ Excellent Thermal Properties
- ✓ Excellent Footfall Noise Reduction
- ✓ Can be used as part of a Code For Sustainable Homes compliant specification
- ✓ Can be used as an alternative product for Robust Details specifications.

### HUSH OVER SCREED MEMBRANE IS SUITABLE UNDER:

Ceramic Tile, Sheet Vinyl, Stone Floors, Laminate, Wood Floors, Parquet, Carpet, Flotex, Marble Floors

## HUSH FR ROOFING MEMBRANE



When creating a flat roof solution, airborne and rain impact noise are two considerations that should be placed high on the agenda. This is especially true when designing for education and health sector buildings where indoor acoustic comfort is of particular importance. (More details of performance standards for school buildings are detailed in Building Bulletin 93, and for healthcare buildings in Health Technical Memorandum 08-01: Acoustics).

The Hush FR Roofing Membrane can be used as part of a lightweight flat roofing solution and assists with achieving the requirements for airborne and rain impact noise performance.

The Laboratory tests clearly indicate that the use of different materials within a flat roof construction can benefit a building's acoustic performance. The Hush FR Roofing Membrane used in the tests was shown to significantly improve both airborne and rain impact acoustic performance.

### ACOUSTIC PERFORMANCE

Can achieve up to 36 dB (Rw) without a suspended ceiling.  
Can achieve up to 62 dB (Rw) with a suspended ceiling.

### SPECIFICATION

- Material - Recycled rubber crumb bonded with polyurethane
- Appearance - Black rubber with multi colour fleck
- Standard Roll Length - 7m
- Standard Width - 1.25m
- Standard Thickness - 10mm
- Approx. Weight - 92 kg
- Approx. Density - 1050 kg/m<sup>3</sup>
- Tensile Strength - Approx. 0.8 N/mm<sup>2</sup> (DIN EN ISO 1798)
- Elongation At Break - Approx. 125% (DIN EN ISO 1798)
- Fire Resistance - Efl (En13501-1)
- Service Temperature Range - -30°C to +80°C
- Chemical Resistance - Conditionally resistant to acids and bases
- Environmental Resistance - Rot-proof and water resistant

### FEATURES

- ✓ Helps achieve both airborne and rain impact noise requirements
- ✓ Helps comply with BB93 design guidelines for acoustics in schools
- ✓ Helps to achieve acoustic regulations in healthcare facilities



## HUSH MAT 12



Hush Mat 12 is a high performing acoustic floor system that has been uniquely engineered to reduce both impact and airborne sound when laid over a structure. The acoustic rubber mat ensures the highest levels of impact sound reduction are met and due to the products mass there is also a high level of airborne noise reduction. This is something that doesn't normally occur with an acoustic floor.

When used in the right application, Hush Mat 12 can be installed over timber, concrete and screeded floors with lath and plaster, suspended timber/metal ceilings or resilient bar ceilings to ensure compliance with all UK Building Regulations.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
49	57	51

### SPECIFICATION

- Size = 1250 x 1000mm
- (nominal) Thickness=12mm
- Weight=8kg/m<sup>2</sup>
- Cutting: By sharp long bladed trimming knife. Score the surface then run through with knife several times to avoid tearing. When shaping, use large scissors or tin snips. A circular saw should be used for large numbers of straight cuts.

### ACCESSORIES

- Perimeter Strip: 1200mm long x 25mm wide x 9mm depth
- Hush dB Mat Adhesive: 10ltr tub – coverage up to 20m<sup>2</sup> per tub depending on substrate

Installation Guidelines upon request

### STORAGE

- Hush Mat 12 must be laid flat and kept dry.
- Hush Mat 12 should only be stored on site if the building has been sealed and is completely dry.

### FEATURES

- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Excellent Impact sound performance levels due to it's unique design
- ✓ Improves airborne sound insulation.
- ✓ Simply laid under most floor finishes.
- ✓ Easily cut and shaped.
- ✓ Suitable for over timber or concrete floor structures.

## HUSH MAT 15



Hush Mat 15 is a high performing acoustic floor system. This uniquely engineered acoustic rubber ensures superior acoustic performance is achieved when reducing impact sound. The product contains high levels of mass which in turn contributes to airborne sound reduction also, this is not normally the case with acoustic flooring.

When used in the right applications, Hush Mat 15 can be used over most lath and plaster and resiliently fixed plasterboard ceilings to ensure compliance to all UK Building Regulations.

### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
49	57	51

Results based on Hush Mat 15 above plasterboard on resilient bars.

### SPECIFICATION

- Size = 1250 x 1000mm
- (nominal) Thickness = 15mm
- Weight = 15kg/m<sup>2</sup>
- Cutting: By sharp long bladed trimming knife. Score the surface then run through with knife several times to avoid tearing. When shaping, use large scissors or tin snips. A circular saw should be used for large numbers of straight cuts.

### ACCESSORIES

- Perimeter Strip: 1200mm long x 25mm wide x 9mm depth
- Hush dB Mat Adhesive: 10ltr tub – coverage up to 20m<sup>2</sup> per tub depending on substrate

Installation Guidelines upon request

### STORAGE

- Hush Mat 12 must be laid flat and kept dry.
- Hush Mat 12 should only be stored on site if the building has been sealed and is completely dry.

### FEATURES

- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Excellent Impact sound performance levels due to it's unique design
- ✓ Improves airborne sound insulation.
- ✓ Simply laid under most floor finishes.
- ✓ Easily cut and shaped.
- ✓ Suitable for over timber or concrete floor structures.

## HUSH OVER SCREED ACOUSTIC MEMBRANE



Hush Over Screed Acoustic Membrane consists of a fine granulate of recycled rubber with a cork and PU elastomer bonding agent. Hush Over Screed Acoustic Membrane is a resilient layer suitable for use under most floor finishes. It has been developed for use many market sectors including Residential, Industrial, Educational, the Healthcare sector and the Leisure sector. Hush Over Screed Acoustic Membrane has been developed to meet the criteria of all UK Building Regulations including Document E, Section 5 and Part G. It can also be used as a alternative Over Screed Acoustic Membrane for Robust Details developments and has recently been used in Code For Sustainable Homes developments. It combines minimum build height with permanent resilience. Hush Over Screed Acoustic Membrane is manufactured from waste rubber and cork which is mixed with a polymer binder to form a purpose made resilient matting. Hush Over Screed Acoustic Membrane offers exceptional acoustic and insulating qualities.

### SPECIFICATION

- Roll Length/Width: 20m x 1m
- Roll Thickness: 3mm, 4.5mm & 5mm
- M<sub>2</sub> Weight : 3mm = 2.05Kgs / 5mm = 3.62Kgs
- Colour: Black/Beige
- Surface: Fine Granulate structure
- Tensile Strength: 0.6 N / mm<sup>2</sup> (DIN 53571)
- Elongation at Break: 3mm approx 50% (DIN 53571) 5mm approx 60% (DIN 53571)
- Density: Approx 390 kg/m<sup>3</sup>
- Service Temp: -30°C to + 80°C
- Flammability Rating: B2
- Environmental Behaviour: Limited resistance to acid
- Impact Sound : 5mm = 21dB, 3mm = 18dB

### FEATURES

- ✓ Easy to Install
- ✓ Remains continually elastic
- ✓ Fully Recycled
- ✓ Minimum Construction Height
- ✓ Suitable to be laid over both concrete and screeded floors.
- ✓ Complies with all UK Building Regulations Standards. Including Document E, Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Suitable for Refurbishment / New Build
- ✓ For use with Under Floor Heating
- ✓ Excellent Thermal Properties
- ✓ Excellent Footfall Noise Reduction
- ✓ Can be used as part of a Code For Sustainable Homes compliant specification
- ✓ Can be used as an alternative product for Robust Details specifications.

### HUSH OVER SCREED MEMBRANE IS SUITABLE UNDER:

Ceramic Tile, Sheet Vinyl, Stone Floors, Laminate, Wood Floors, Parquet, Carpet, Flotex, Marble Floors

## HUSH UNDER SCREED ACOUSTIC MEMBRANE



Hush Under Screed Acoustic Membrane has been designed to isolate a screed from the structure to comply with UK Building Regulations. By isolating the screed you ensure impact noise does not travel through the masonry structure. This material is commonly used in New Build Development and is an alternative solution to Robust Details acoustic membranes. Hush Under Screed Acoustic Membrane is used to isolate screed from Concrete Structures, Concrete Plank Structures, Raft Structures, Concrete/Metal Structures and Beam and Block Structures.

### ACOUSTIC PERFORMANCE

Impact L' <sub>nT,w</sub> dB	Airborne D <sub>nT,w</sub> dB	Airborne D <sub>nT,w</sub> + C <sub>tr</sub> dB
55	53	50

Results are based on the Hush system HD1045

### SPECIFICATION

- Roll width: 1.25m +/- 1.5% (DIN 7715)
- Roll Length: length varies between 6-10m depending on thickness. +/- 1.5%
- Roll thickness: 6, 8, 10mm

### FEATURES

- Colour: Black
- Surface: Fine tuned granulate structure
- Tensile strength: Approx 0.7 MPa (DIN 53571)
- Tear resistance: Approx 75% (DIN 53571)
- Deformation Module: 0.5/mm<sup>2</sup> (Stress relief 20%)
- Density: Ca. 700 kg/m<sup>3</sup>
- Flammability Rating: B2
- Environmental Behaviour: Limited resistance to acid
- Impact sound: 6mm = 21dB reduction when used under a 50mm screed

### FEATURES

- ✓ Easy to install
- ✓ The product has a high resistance to compressive loads and remains outstanding elastic
- ✓ Outstanding Impact Sound Reduction
- ✓ Loose Lay System which does not slip during installation
- ✓ Meets and exceeds tough acoustic building requirements
- ✓ Building Regulations Part E (England and Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used as part of a Code For Sustainable Homes Development
- ✓ Can be used as an alternative to Robust Details
- ✓ Outstanding compressive strength and load bearing performance
- ✓ High resilience does not compress and reduce sound absorption
- ✓ Environmentally friendly -- Fully recycled



# ABSORBER PANELS

## HUSH ACOUSTICS ARE PROUD TO RELEASE OUR NEW SOUND ABSORBER PRODUCTS DESIGNED TO BE FULLY COMPLIANT TO BB93 BUILDING REGULATIONS

Mid to High frequency sounds (in most cases) speech within spaces such as classrooms, multipurpose community and sports halls, offices, bars, restaurants and cafés can often cause disruptive and discomforting noise problems.

Many places are increasingly using acoustic sound absorbers to

resolve their noise problems and to improve their buildings sound quality.

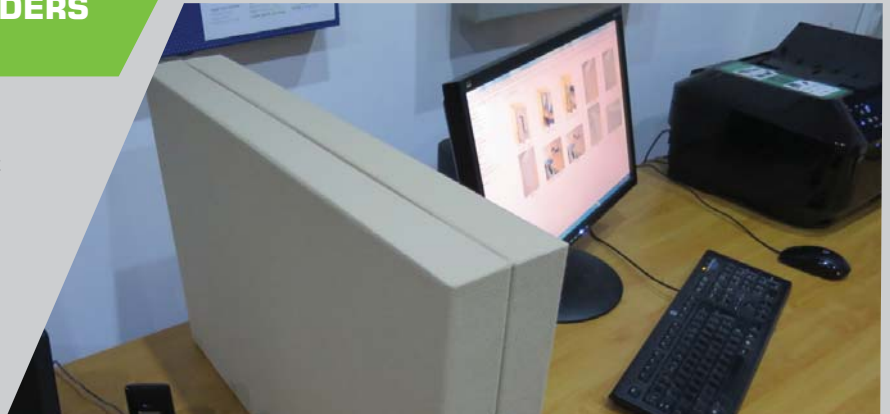
Designed to eliminate echoes and sound reverberation, Hush can provide acoustic absorbers in a variety of stylish finishes. Whilst creating a tailored interior design, the acoustic absorber will provide a practical and efficient way of dampening sound reverberation within rooms, halls, corridors and virtually any other internal space.

Hush can also provide bespoke absorber sizes if required. This includes panel thickness and also panel size.

## HUSH ABSORBING DESK DIVIDERS

Noise reverberation is common in many interiors wherever there is a predominance of hard, acoustic reflective surfaces.

The Hush Absorbing Desk Divider is a high performance product specifically designed to absorb speech frequency sound. It offers outstanding noise control in some key situations where good speech communication is important – offices, tele-sales centres, receptions and similar.



Hard walls, floors & ceilings are not the whole story leading to poor speech communications conditions. For both staff-to-staff conversations and those of staff-to-caller on the phone, desks and PC screens create localized noise problems of so-called "cross-talk" (overlapping speech) and a reflective "feedback" (sound reflecting back to headset or phone). Ease of conversation becomes lost and conversations typically strained as voices rise in a bid to become clearer and heard. Issues of speech confidentiality may arise.

The Hush Absorbing Desk Divider offers absorption both close to and between staff – providing "acoustic separation". The Hush Absorbing Desk Divider comprises two Hush-absorber 50 Class A tested & certified absorbers mounted back-to-back on a concealed support frame. The whole unit either sits self-supporting between desks, or clamped to them using an accessory pair of Hush-clamps.

The standard stock height of the Hush Absorbing Desk Divider is 400mm, providing clear vision over between staff. Alternative heights are available on request.

### HUSH ABSORBING DESK DIVIDER STANDARD SIZES

(all 100mm overall thick):

Available stock in sizes (suited standard desk lengths and widths)

1800mm	1600mm	1400mm	1200mm	1000mm	800mm	600mm
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Available sizes where abutting other Hush " " absorbers:

700mm	1100mm	950mm	900mm	750mm	700mm
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Other sizes available on request.

The Hush Absorbing Desk Divider is finished in a robust acoustically transparent fabric to all faces. A standard 16-colour range is available. Stock colours include blue (matching a popular furniture upholstery) and light brown (resembling many light-wood finishes) are available from stock.

### ACOUSTIC PERFORMANCE

Absorber Class = A

Hush-absorber 50	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	αw
50mm	0.30	0.65	1	1	0.9	0.8	0.9

**PLEASE NOTE:** As the Hush Absorbing Desk Divider comprises TWO Hush-Absorber 50 panels, the above absorption data applies to one side only – the overall performance of the Hush Absorbing Desk Divider is effectively double.

### FEATURES

- ✓ Class A tested and certified sound absorption performance
- ✓ Easy installation – simply stands between desks or clamps to the using the Hush-clamp accessories
- ✓ Tough, Robust and an easily maintained finish.
- ✓ No particle shed (associated with glass/mineral fibre absorber cores).
- ✓ An acoustic foam core.

“ I APPRECIATED THE MINIMALISTIC DESIGN, YET BOLD COLOURS TO REALLY GIVE THE ROOM A SENSE OF VIBRANCY. THE HUSH INSTALLATION TEAM WAS VERY QUICK AND EFFICIENT WHICH IS IMPORTANT AS IT DIDN'T DISTURB MY CUSTOMERS DURING BUSY TIMES. ”

-MIKE O'CONNELL, GENERAL MANAGER OF HOEBRIDGE

## HUSH ABSORBING NOTICE BOARDS



The Hush Absorbing Notice Boards are a tested and certified Class A Sound Absorber. It offers outstanding noise control, particularly at speech frequencies, and so is ideally suited in locations where good speech communication is important – busy offices, tele-sales centres, schools, studios...

This combined dual function of notice board & sound absorber also makes it a very practical & desirable solution. It is both pin, staple and velcro friendly.

The facing is very robust and resistant to impact, as is all in the Hush absorber range. The standard facing range offers 10 attractive colours. Colour charts available on request.

### HUSH MESSENGER STANDARD SIZES

Other sizes available on request.

- 1200 x 1200mm x 50mm
- 1200 x 1000mm x 50mm
- 1200 x 800mm x 50mm
- 1200 x 600mm x 50mm
- 600 x 600mm x 50mm

### ACOUSTIC PERFORMANCE

Absorber Thickness = 50mm Absorber Class = A Sound Absorption Coefficient

125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	αw
0.3	0.7	1	1	0.9	0.8	0.9

### FEATURES

- ✓ Class A tested and certified sound absorption performance
- ✓ Easy Installation - simply hangs on screw heads via keyhole cutouts in rear of the product
- ✓ Keyhole cutouts allow fitting in either orientation of "Landscape" or "Portrait"
- ✓ Tough, Robust and an easily maintained finish.
- ✓ No particle shed (associated with glass/mineral fibre absorber cores).
- ✓ An acoustic foam core.

## HUSH ABSORBER 30



The Hush Absorber 30 is a Class C Absorber that works using specially formulated 30mm thick acoustic foam and is hand finished with interior fabric applied to the face, edges and back return.

### HUSH ABSORBER 50 SIZES:

- 1200mm x 1000mm x 30mm
- 1200mm x 600mm x 30mm
- 600mm x 500mm x 30mm

### ACOUSTIC PERFORMANCE

Absorber Thickness = 50mm Absorber Class = A Sound Absorption Coefficient

125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	αw
0.15	0.3	0.7	0.85	0.85	0.75	0.6

### FEATURES

- ✓ Class C Acoustic Performance
- ✓ Fits on any alignment and angle including slopes and ceiling in both portrait and landscape.
- ✓ Stylish and visually pleasing designs available in a choice of sizes, colours and finishes.
- ✓ Simple and clean to install-no drilling or mess. Simply install using Hush Absorber Adhesive.
- ✓ Fabric covers with optional Class 1 to Class 0 flame retardant.
- ✓ Wide range of fabric colour options. Please see fabric colour charts.



## HUSH ABSORBER 50



The Hush Absorber 50 is a Class A Absorber that works using a specially formulated 50mm thick acoustic foam and is hand finished with interior fabric that is applied to the face, edges and back return.

### HUSH ABSORBER 50 SIZES:

- 1200mm x 1000mm x 50mm
- 1200mm x 600mm x 50mm
- 600mm x 500mm x 50mm

### ACOUSTIC PERFORMANCE

Absorber Thickness = 50mm Absorber Class = A Sound Absorption Coefficient

125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	αw
0.3	0.65	1	1	0.9	0.8	0.9

### FEATURES

- ✓ Class A Acoustic Performance
- ✓ Fits on any alignment and angle including slopes and ceiling in both portrait and landscape.
- ✓ Stylish and visually pleasing designs available in a choice of sizes, colours and finishes.
- ✓ Simple and clean to install-no drilling or mess. Simply install using Hush Absorber Adhesive.
- ✓ Fabric covers with optional Class 1 to Class 0 flame retardant.
- ✓ Wide range of fabric colour options. Please see fabric colour charts.

## HUSH ABSORBER 50A



The Hush Absorber 50A is a Class A Absorber which consists of fabric wrapped 50mm thick acoustic foam, with built in support frames to allow for bracket fixing to provide an air void behind the absorber for enhanced acoustic performance.

### ACOUSTIC PERFORMANCE

Absorber Thickness = 50mm Absorber Class = A Sound Absorption Coefficient

125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	αw
0.3	0.7	1.00	1.00	0.9	0.8	0.9

### FEATURES

- ✓ Class A Acoustic Performance
- ✓ Stylish and visually pleasing designs available in a choice of sizes, colours and finishes
- ✓ Fabric covers with optional Class 1 to Class 0 flame retardant.
- ✓ Fits on any alignment and angle including slopes and ceiling in both portrait and landscape.
- ✓ Absorber 50A with standard 40mm mounting brackets
- ✓ Simple to install and remove for access, relocation or decoration.  
Please note all testing was carried out at the University of Salford in accordance with BS EN ISO 11654:1997

“ JUST WANTED A SAY A HUGE THANK YOU FROM US ALL FOR YOUR WORK AROUND THE ACOUSTIC ISSUES. EVERYONE HAD NOTICED THE POSITIVE IMPACT AND ASSEMBLY TODAY WAS SO MUCH BETTER

HEADTEACHER - EAST SHEEN PRIMARY SCHOOL

”





# HUSH ACCESSORIES

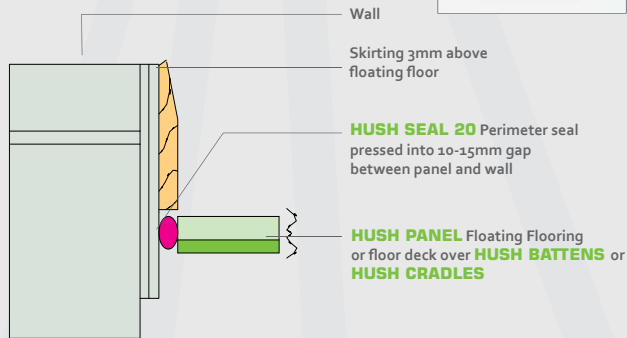
**ALL HUSH ACOUSTIC PRODUCTS AND SYSTEMS NEED THE HUSH ACCESSORIES TO BE INSTALLED CORRECTLY. WHETHER IT IS FLANKING STRIPS, ADHESIVES OR ACOUSTIC SEALANT THEY ALL HAVE A PLACE. PLEASE ENSURE YOU ARE SPECIFYING THE USE OF THE ACCESSORIES TO MAKE SURE THE PRODUCTS WILL BE INSTALLED CORRECTLY ON SITE.**

## HUSH PERIMETER SEALS AND FLANKING STRIPS

All Hush perimeter seals and flanking strips have been designed to maintain acoustic isolation and seal all perimeters of the Hush acoustic product range at wall junctions. The Hush RD Flanking Strip complies with the Robust Details criteria. All three can be used with the Hush acoustic product range.

### HUSH SEAL 20 PERIMETER SEAL

- Comprises - Compressible solid foam tube
- Dimensions - 20mm diameter
- Quantity - Multiples of 10 lm or cartons of 350 lm



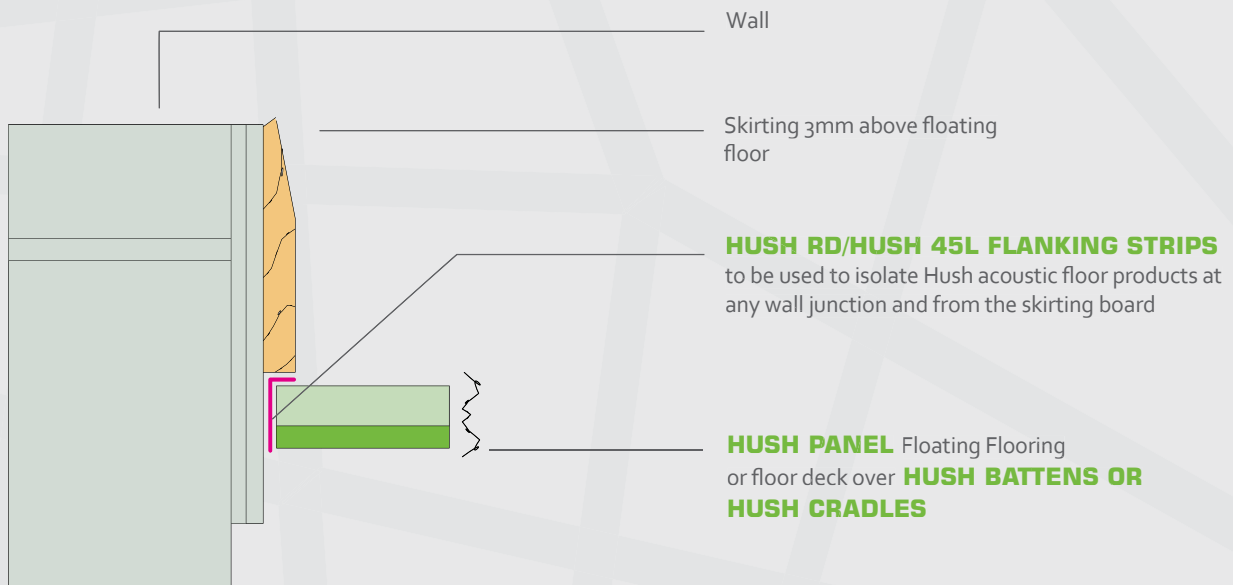
### HUSH RD FLANKING STRIP

- Comprises - Foam isolation strip
- Dimensions - 6mm thick x 100mm or 150mm wide
- Quantity - Rolls of 100 lm



### HUSH 45L FLANKING STRIP

- Comprises of pre-formed angled isolation strip
- Dimensions 5mm thick x 45mm x 45mm wide x 2400m
- Quantity - strips of 2.4m lengths



## HUSH BOND PANEL ADHESIVE

Hush Bond Panel Adhesive is used to ensure a strong bond at the t&g joints of Hush Panel or any other bonding required when fitting Hush sound insulation products and systems.

### PRODUCT DATA

- For bonding all tongue and groove flooring joints and tops of Hush Felt 25
- 1 Litre nossed bottles Singularity or in cartons of 9
- 1litre per 20/ 25m2



## HUSH GROMMETS

Hush Grommet Fixing Isolators have been designed for use at door thresholds, access hatches and stair treads or in the absence of t&g joints and should be used sparingly as fixing isolators to eliminate "lipping"

### PRODUCT DATA

- Countersink into the upper surface of the Hush-Panel Floating Flooring. Use sparingly and when only absolutely necessary.
- Available in packs of 50 and 100



## HUSH ACOUSTIC & INTUMESCENT SEALANT

Hush Acoustic sealant is for use in gap filling around room perimeters of surface penetrations or wherever there is a need for acoustic seal to be made when installing Hush products or systems.

### PRODUCT DATA

- General gap filling in acoustic systems
- 900ml nossed tubes sold singularly or in cartons of 12. Jumbo sealant gun required which is also available



## HUSH MESH FIREWIRE

Used in conjunction with Hush Ecoslab 100 Sound Absorber to create a 60 minute fire resistance at ceiling level. Hush-Mesh Firewire enables work to be carried out from above in situations where appropriate fire resistance cannot be applied to the ceiling side of the separating floor.

### PRODUCT DATA

- Dressed down the sides of timber joists and across the back of the Ceiling
- 1200mm wide x 50m long --- total 60m2 per roll



## HUSH 10 JOIST STRIPS

### SOLD ONLY WITH HUSH PANELS

Hush-10 Joist Strips are supplied only as part of a system to allow Hush-Panel 28, 32 and Hush-Ply 28 to be fitted as a direct to joist structural floor solution.

### PRODUCT DATA

- Stapled directly on to timber joists or glued on to metal joists as part of a Hush-Panel Floating Floor System
- 10mm thick x 50mm wide x 1.37m long



## HUSH ISOLATION TAPE

Hush self adhesive isolation tape has been designed as an isolating layer to be used under timber/metal stud walls or on top of floor joists.

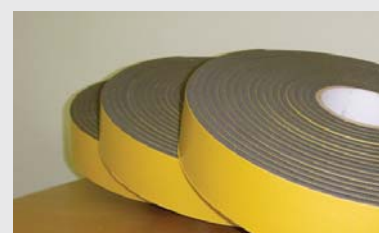
It is imperative to isolate joist tops, the header/sole plates of stud construction and seal all wall linings to break sound transmission paths. Hush Heavy Duty Isolation Tape can be used for all these applications.

### PRODUCT DATA

- Self-adhesive foam/rubber tape which is easily

installed.

- Improves acoustic performance in stud wall construction.
- Isolates chipboard, plywood or original floorboards from the structural timber joists.
- 10m rolls. Comes in 50mm and 100mm widths.
- Nominal 8mm thick.



# HUSH SYSTEMS

**ACOUSTIC PERFORMANCE LEVELS ARE ACHIEVED FOR A SEPARATING FLOOR, CEILING OR WALL CONSTRUCTION BY USING AN OVERALL SYSTEM. ACOUSTIC PERFORMANCE LEVELS ARE RARELY ACHIEVED BY ONE PRODUCT ESPECIALLY IF YOU ARE COMPLYING WITH ONE OF THE UK BUILDING REGULATIONS.**

To comply with any UK Building Regulation whether it be Approved Document E (England & Wales), Section 5 of the Scottish Building Standards (Scotland) or Part G (Northern Ireland) you will need to use, specify or choose the correct acoustic system.

Hush have developed a range of standard systems that can be used to comply with the relevant acoustic regulation you are building or designing too.

We have systems for floors, walls and ceilings that include different solutions for masonry structures and timber structures.

It is imperative that a complete system is used when designing or building to comply with an acoustic regulation. If a floor system is being designed then everything from the acoustic flooring down to the plasterboard lining needs to be specified correctly. Likewise if you are designing a masonry wall construction then everything from the block density to the scratch coat render needs to be specified correctly. Hush can help ensure the correct system is used and is fit for purpose.

It is then crucial that when installing the systems all the elements are installed as specified in our system details. Changing the specification from what has been tested and detailed in this systems section of our brochure will change the overall acoustic performance of the system and will change the overall acoustic test result. It is imperative that the systems specified by Hush are used in their entirety to ensure the acoustic performance levels are achieved.

Please enjoy looking through our range of acoustic systems and should you require any assistance with picking the right system for the application you are working on then feel free to call the Hush technical department on 0151 933 2026.

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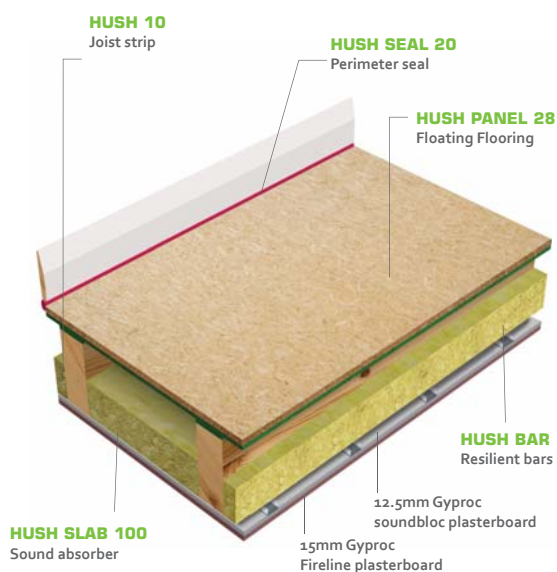
# SYSTEMS FOR TIMBER FLOOR STRUCTURES

## THE MOST COMMON TYPE OF FLOOR CONSTRUCTION IN THE UK BUILDING INDUSTRY IS TIMBER STRUCTURES.

There are many variables when it comes to timber floor structures including, joist types, joist depths, existing structures and new structures. Hush have developed many specialist systems to reduce sound transmission through timber structures to ensure compliance with the UK Building Regulations. All the specialist systems have

suitable acoustic flooring, joist infills and a decoupled ceiling where applicable. You will see that there are a number of timber floor solutions in the brochure so to ensure the correct one is used for the correct application we can offer expert advice through our technical team.

### HD1012 SYSTEM 2003



#### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
56	54	45

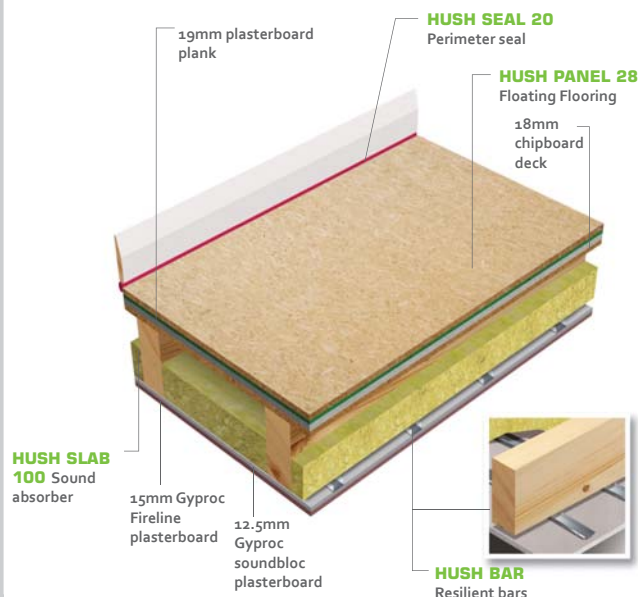
#### SPECIFICATION

- Hush-Panel 28, all teegee joints glued using Hush-Bond, laid over Hush-10 Joist Strips, secured to joist tops as per manufacturers instructions, with all perimeters sealed using Hush-Seal 20.
- Hush-Slab 100 fitted between joists with Hush-Bars screw fixed to the underside of joists at 600mm centres and at right angles to the joists.
- One layer of 12.5mm Gyproc Soundbloc plasterboard and one layer of 15mm Gyproc Fireline plasterboard secured to Hush-Bars. Seal all perimeters prior to skimming.

#### FEATURES

- ✓ System has been designed for conversion/refurbishments project only. Not to be used in new build development.
- ✓ Complies to the conversion/refurbishment regulations of Approved Document E.
- ✓ A fully developed economical sound insulation system between separating floors for use in refurbishment projects using timber joists
- ✓ Provides a 1 hour fire resistance at ceiling level

### HD1013 SYSTEM 2003 PLUS



#### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
55	55	49

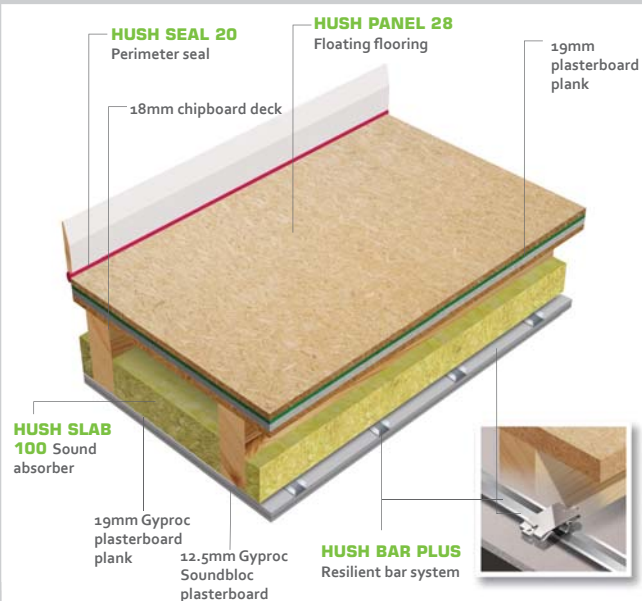
#### SPECIFICATION

- Hush-Panel 28, all teegee joints glued using Hush-Bond, laid over 19mm plasterboard plank, laid over 18mm/22mm chipboard deck, with all perimeters sealed using Hush-Seal 20.
- Hush-Slab 100 fitted between joists with Hush-Bars screw fixed to the underside of joists at 600mm centres.
- One layer of 12.5mm Gyproc Soundbloc plasterboard and one layer of 15mm Gyproc Fireline plasterboard secured to Hush-Bars. Seal all perimeters prior to skimming.

#### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in Conversion, Refurbishment and New Build Development.
- ✓ A fully developed economical sound insulation system between separating floors for use in refurbishment projects using timber joists
- ✓ Provides a 1 hour fire resistance at ceiling level

## HD1019 HUSH SYSTEM 2003 ADVANCED



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
52	58	53

Results based on all Hush materials listed in Hush System HD1019 being used. Results are also based on a 200mm timber joists and all flanking junctions being treated.

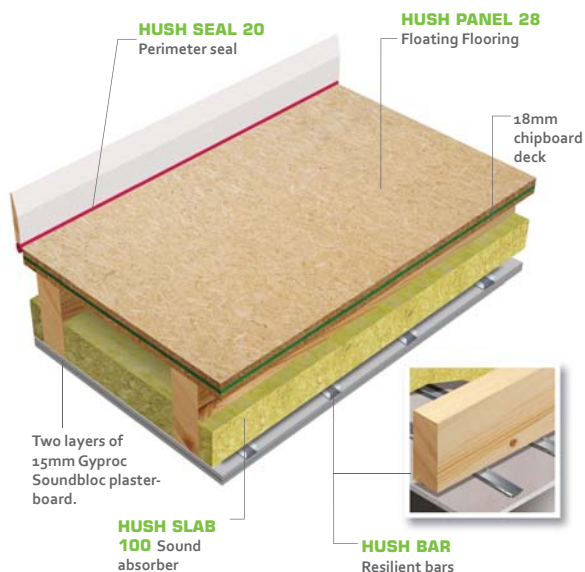
### SPECIFICATION

- Hush-Panel 28, all teegee joints glued using Hush-Bond, laid over 19mm plasterboard plank, laid over 18mm chipboard deck, with all perimeters sealed using Hush-Seal 20.
- Hush-Slab 100 fitted between joists with Hush-Bar Plus System screw fixed to the underside of joists at 450mm centres.
- One layer of 19mm plasterboard plank and one layer of 12.5mm Gyproc Soundbloc plasterboard secured to Hush-Bar Plus System. Seal all perimeters prior to skimming.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in Conversion, Refurbishment and New Build Development.
- ✓ A fully developed economical sound insulation system between separating floors for use in refurbishment projects using timber joists
- ✓ Provides a 1 hour fire resistance at ceiling level

## HD1014 HUSH SYSTEM 2003 OVERLAY



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
61	51	43

Results based on all Hush Components of the Hush System HD1014 being used and installed correctly as per the Hush Installation guides. We recommend that the structure consists of a minimum 200mm timber joist.

### SPECIFICATION

- Hush Panel 28, all T&G joints to be glued using Hush Bond adhesive. Hush Panel to be laid over 18/22mm T&G chipboard/plywood or existing floorboards. All perimeters of the Hush Panel to be sealed using the Hush Seal 20.
- Hush-Slab 100 fitted between joists with Hush-Bars screw fixed to the underside of joists at 600mm centres.
- Two layers of 15mm Soundbloc plasterboard to be installed to the underside of the Hush Bar Resilient Bar. Seal all perimeters with Hush Acoustic Sealant prior to skimming.

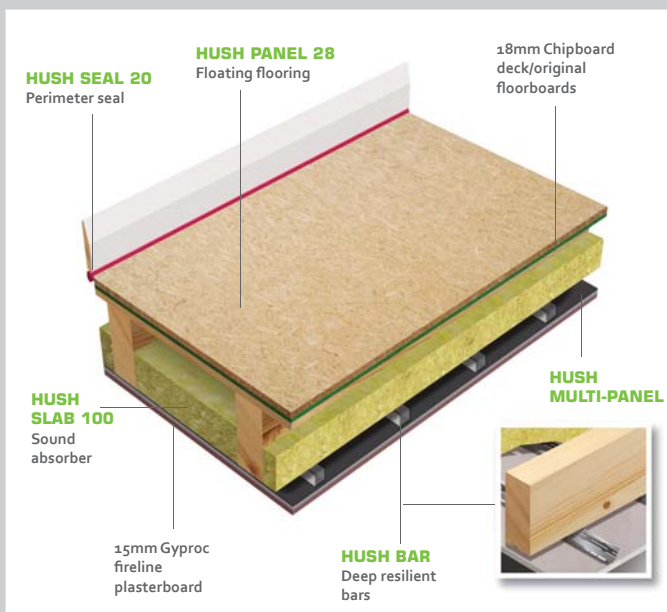
### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in Conversion and Refurbishment developments
- ✓ A fully developed economical sound insulation system to be used to form a separating floor construction in refurbishment and conversion development with timber joists
- ✓ Provides a 1 hour fire resistance at ceiling level

Call one of our team today on 0151 933 2026 for more information about our wide range of systems for timber floor products.



## HD1051 HUSH PANEL 28 WITH HIGH MASS CEILING SYSTEM



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
52	55	48

Results based on all Hush materials listed in the Hush System HD1051 being used. Results are also based on 200mm timber joists and all flanking junctions being treated.

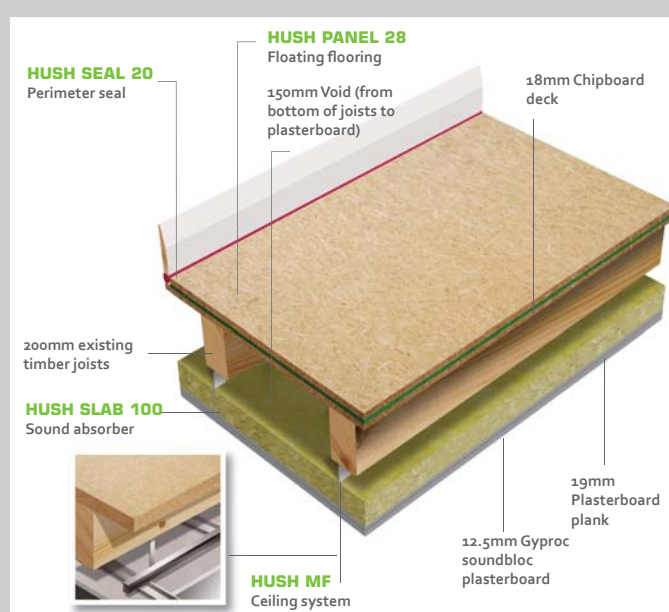
### SPECIFICATION

- Overlay the 18mm chipboard deck or original floorboards with Hush Panel 28. Ensure all perimeter junctions are isolated using Hush Seal 20 and all T&G joints are glued using Hush Bond Panel Adhesive.
- Install Hush Slab 100 Sound Absorber within the joists. Ensure the Hush Slab is tightly packed between the joists and ensure there are no gaps.
- Hush Deep Resilient Bars to be fixed horizontally to the underside of the joists at 600mm centres.
- Install Hush-Multi Panel to the underside of the Hush Deep Resilient Bars.
- Over board the Hush-Multi Panel with 15mm Fireline plasterboard.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in new build, conversion and refurbishment developments.
- ✓ A high performing solution with minimal floor and ceiling build up.
- ✓ For use on developments that require a high mass ceiling system to achieve high acoustic performances
- ✓ Provides a 1 hour fire resistance at ceiling level

## HD1038 HUSH SYSTEM MF28



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
51	58	52

Hush-System MF28 HD1038 results are based on all Hush components being used as the data shown above and installed as per the Hush installation guides.

### SPECIFICATION

- Hush-Panel 28, all T&G joints glued using the Hush-Bond Panel Adhesive, laid over 18mm/22mm chipboard deck, with all perimeters sealed using Hush-Seal 20.
- Install the Hush-MF system to the underside of the joists creating a minimum 150mm void from the underside of the joists to the back of the plasterboard lining. Install the Hush Slab 100 Sound Absorber tightly together within the ceiling void.
- Install a double plasterboard layer to the underside of the Hush-MF system. The plasterboard lining should consist of 19mm Plasterboard Plank and 12.5mm Soundbloc. Seal all perimeters with the Hush Acoustic Sealant prior to skimming.

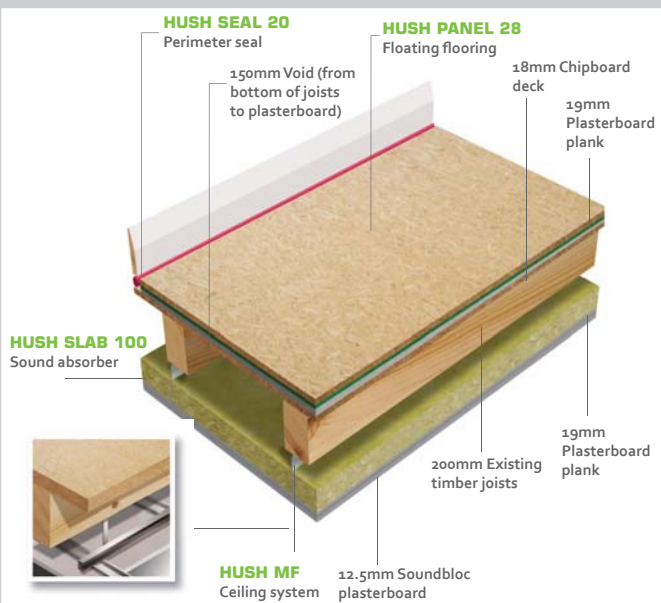
### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in Conversion, Refurbishment and New Build Development.
- ✓ A fully developed economical sound insulation system for use in separating floor/ceiling construction in Conversion, Refurbishment and New Build Development.
- ✓ Provides a 1 hour fire resistance at ceiling level





## HD1036 HUSH SYSTEM LC PLUS



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
51	56	52

Hush-System LC Plus HD1036 is based on all Hush components used as per the data sheet above and installed as per the installation guides.

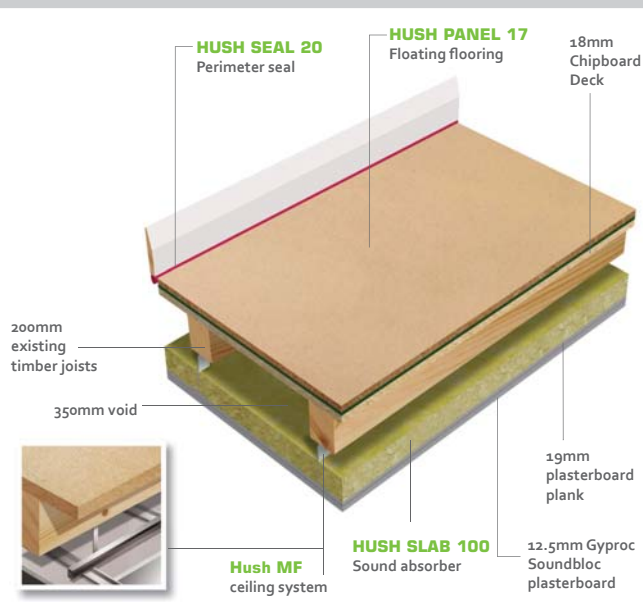
### SPECIFICATION

- Hush panel 28, all T&G joints glued using the using Hush bond adhesive and perimeters sealed using Hush seal 20. All to be laid over 19mm plasterboard plank
- Plasterboard plank to be spot bonded to the structural deck and sealed at the perimeters using the Hush acoustic sealant
- MF ceiling system suspended from the underside of joists, creating a 350mm void (underside of the floorboards to the back of the plasterboard lining)
- One layer of 19mm plasterboard plank and one layer of 12.5mm Soundbloc plasterboard secured to MF framework with Hush slab 100 fitted in the void.

### FEATURES

- ✓ Complies with UK Building Regulations, Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ An economical lowered ceiling system for use in Conversion, Refurbishment and New Build Developments
- ✓ Provides 1 hour fire resistance
- ✓ Excellent airborne and impact sound reduction for separating floor/ceiling construction

## HD1025 HUSH SYSTEM MF17



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
49	57	50

Hush-System MF17 results are based on all Hush components being used as shown above and installed using the Hush installation guides. Also, all flanking paths must be addressed.

### SPECIFICATION

- Hush-Panel 17, all T&G joints glued using the Hush Bond Panel Adhesive, laid over 18mm/22mm chipboard deck, with all perimeters sealed using Hush-Seal 20
- Install the Hush-MF system to the underside of the joists creating a minimum 150mm void from the underside of the joists to the back of the plasterboard lining. Install the Hush Slab 100 Sound Absorber tightly together within the ceiling void.
- Install a double plasterboard layer to the underside of the Hush-MF system. The plasterboard lining should consist of 19mm Plasterboard Plank and 12.5mm Soundbloc. Seal all perimeters with the Hush Acoustic Sealant prior to skimming.

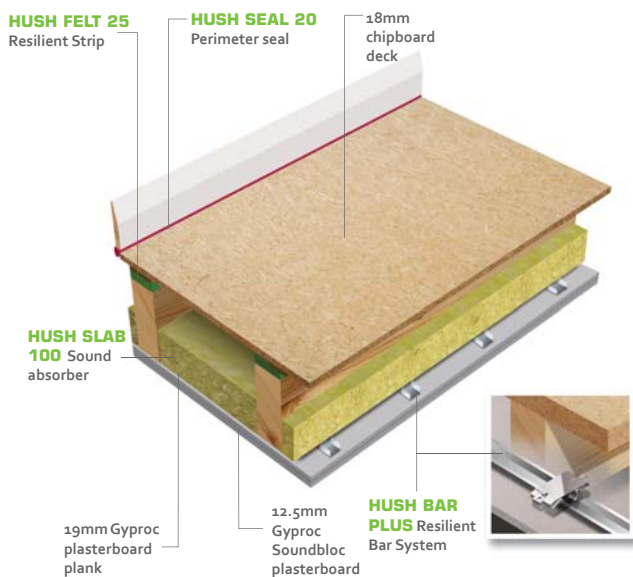
### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in conversion, refurbishment and new build development.
- ✓ A fully developed economical sound insulation system to be used to form separating floor/ceiling constructions in conversion, refurbishment and New Build Development.
- ✓ Provides a 1 hour fire resistance at ceiling level
- ✓ A thin overlay solution to ensure limited floor build up

“ THE WORK HUSH PUT IN TO ALLOW ME TO CHANGE THE FLOOR FINISH IN MY APARTMENT FROM CARPET TO ENGINEERED TIMBER WAS AMAZING. I CAN'T THANK THEM ENOUGH.

– DOMESTIC SITUATION, KENSINGTON, LONDON

## HD1016 HUSH SYSTEM HF25



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
55	55	46

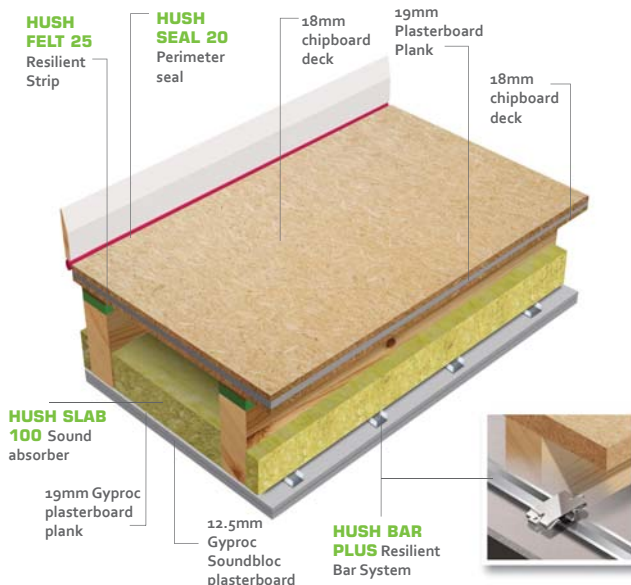
### SPECIFICATION

- Hush-Felt 25 Resilient Strip stapled to the joist tops, with 18mm chipboard glued above using Hush-Bond, with all perimeters sealed using Hush-Seal 20.
- Hush-Slab 100 fitted between joists with Hush-Bar Plus System screw fixed to the underside of joists at 450mm centres.
- One layer of 19mm plasterboard plank and one layer of 12.5mm Gyproc Soundbloc plasterboard secured to Hush-Bar Plus System. Seal all perimeters prior to skimming.  
Advanced system is available

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in conversion/refurbishment developments
- ✓ Provides a 1 hour fire resistance at ceiling level

## HD1017 HUSH SYSTEM HF25 ADVANCED



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
50	58	52

### SPECIFICATION

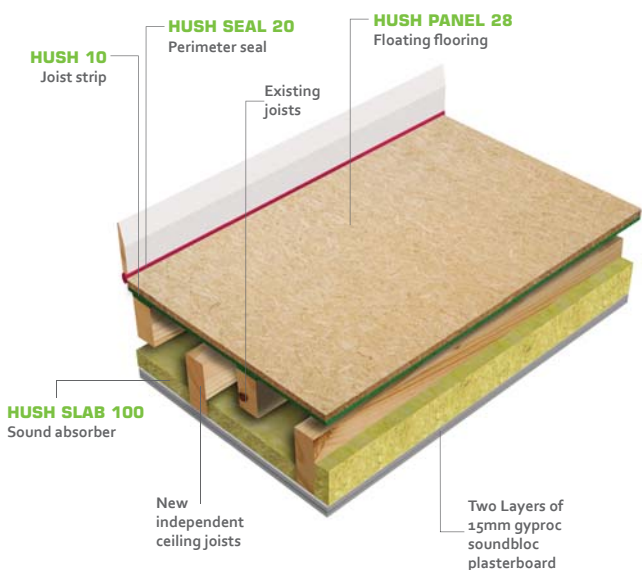
- Hush-Felt 25 Resilient Strip stapled to the joist tops, with 18mm tongued and grooved flooring grade chipboard glued above using Hush-Bond.
- 19mm plasterboard plank bonded to the top of the initial layer of chipboard using Hush Acoustic Sealant. A further layer of 18mm tongued and grooved chipboard to be bonded to the top of the plank using the Hush Acoustic Sealant. All perimeters sealed with Hush Seal 20 perimeter seal.
- Hush-Slab 100 fitted between joists with Hush-Bar Plus System screw fixed to the underside of joists at 450mm centres.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in new build or refurbishment projects using timber joists
- ✓ Provides a 1 hour fire resistance at ceiling level



## HD1020 HUSH SYSTEM IC



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
52	57	51

Results based on 200mm timber joists at 450mm centres with 100mm ceiling joists.

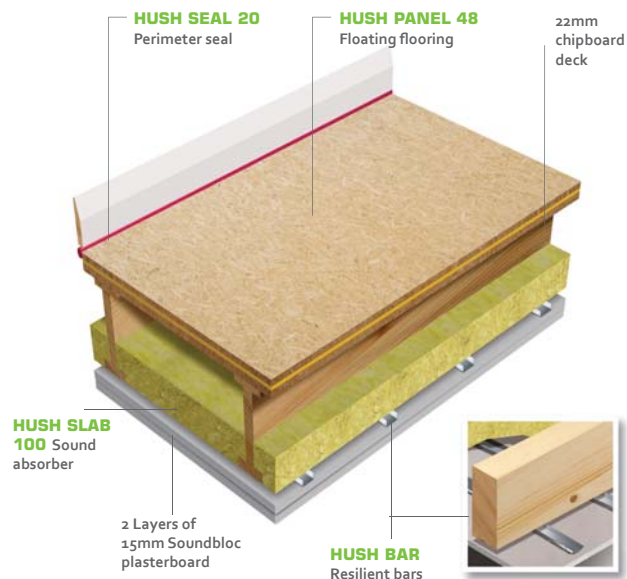
### SPECIFICATION

- Hush-Panel 28, all teegee joints glued using Hush-Bond, laid over Hush-10 Joist Strips, secured to joist tops as per manufacturer's instructions, with all perimeters sealed using Hush-Seal 20.
- Independent ceiling joists on hangers, with Hush-Slab 100 fitted between.
- Two layers of 15mm Gyproc Soundbloc plasterboard secured to the underside of the ceiling joists. Seal all perimeters prior to skimming.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ For use in New Build, Conversion or Refurbishment projects.
- ✓ Provides a 1 hour fire resistance at ceiling level

## HD1027 HUSH SYSTEM PREMIER



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
54	49	58

Results based on the full Hush System HD1027 being used with a minimum 225mm I joist and suitable wall lings to reduce flanking noise.

### SPECIFICATION

- Hush-Panel 48, all T&G joints glued using Hush-Bond, laid over floor deck, as per manufacturer's instructions, with all perimeters sealed using Hush-Seal 20.
- Hush-Slab 100 fitted between joists with Hush-Bars screw fixed to the underside of joists at 600mm centres and at right angles to the joists.
- Two layers of 15mm Gyproc Soundbloc plasterboard secured to Hush-Bars. Seal all perimeters prior to skimming.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ Can be used in New Build, Conversion or Refurbishment development
- ✓ Provides a 1 hour fire resistance at ceiling level

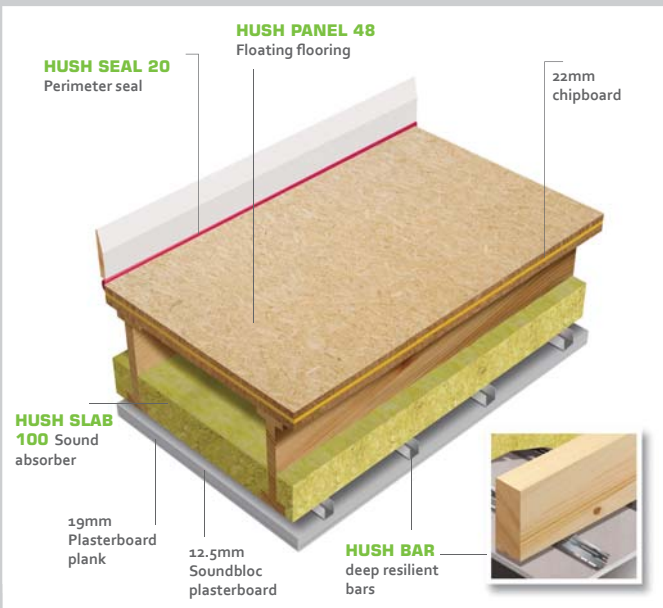
“ JUST WANTED A SAY A HUGE THANK YOU FROM US ALL FOR YOUR WORK AROUND THE ACOUSTIC ISSUES. EVERYONE HAD NOTICED THE POSITIVE IMPACT AND ASSEMBLY TODAY WAS SO MUCH BETTER ”

– HEADTEACHER - EAST SHEEN PRIMARY SCHOOL





## HD1029 HUSH SYSTEM TF



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
51	58	50

Results based on the full Hush System HD1029 being used within timber frame construction with a minimum of a 225mm I joist.

### SPECIFICATION

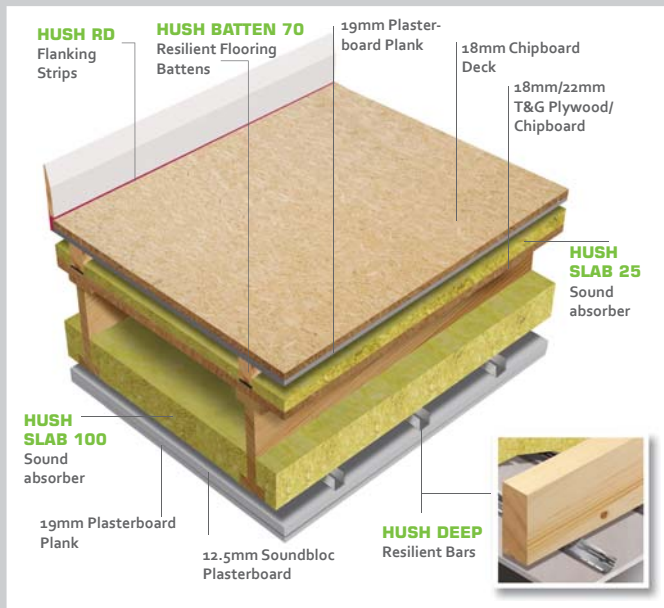
- Hush-Panel 48, all T&G joints glued using Hush-Bond, laid over floor deck, as per manufacturer's instructions, with all perimeters sealed using Hush-Seal 20.
- Hush-Slab 100 fitted between joists with Hush-Bar Deep fixed to the underside of the joists at 450mm centres and at right angles to the joists
- 19mm Plasterboard plank and 12.5mm Soundbloc secured to Hush-Bar Deep resilient bars. Seal all perimeters prior to skimming.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors for use in new build timber frame projects
- ✓ Provides a 1 hour fire resistance at ceiling level
- ✓ Fully tested system to meet in excess of minimum Building Regulations standards in timber frame construction.
- ✓ Can be used as an alternative to Robust Details in timber frame construction



## HD1035 HUSH SYSTEM TF ROBUST



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
50	65	59

Results based on all Hush Components of the Hush System HD1014 being used and installed correctly as per the Hush Installation guides. We recommend that the structure consists of a minimum 200mm timber joist.

### SPECIFICATION

- Install 18mm T&G chipboard and 19mm plasterboard plank in opposite directions with staggered joints over the Hush Batten 70 acoustic battens. Ensure the perimeters of the chipboard and plank are isolated using the Hush RD Flanking Strip. Ensure the Hush Batten 70 acoustic battens are installed at the correct centres over the structural deck.
- Incorporate the Hush Slab 100 Sound Absorber between the joists. To the underside of the joists install the Hush Deep Resilient Bars. The bars are to be installed horizontally to the joists at the required centres.
- 19mm Plasterboard Plank and 12.5mm Soundbloc secured to Hush-Bar Deep resilient bars. Seal all perimeters prior to skimming.

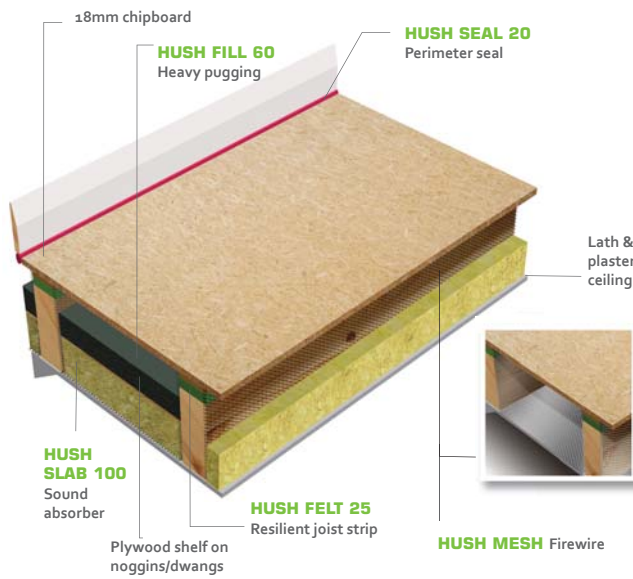
### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors for use in new build timber frame projects
- ✓ Provides a 1 hour fire resistance at ceiling level
- ✓ Fully tested system to meet in excess of minimum Building Regulations Standards in timber frame construction.
- ✓ Can be used as a Robust Detail in timber frame construction
- ✓ System creates service voids at ceiling level and floor level.

“ I WAS DELIGHTED WITH THE PANELS. THEY BLEND IN AND COMPLIMENT THE LOOK AND AESTHETICS OF THE ROOM ”

– GENERAL MANAGER OF HOEBRIDGE

## HD1006 HUSH SYSTEM 1



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
48	64	53

Results based on the full Hush System HD1006 system being used in conjunction with existing 200mm joists and a full lath and plaster ceiling.

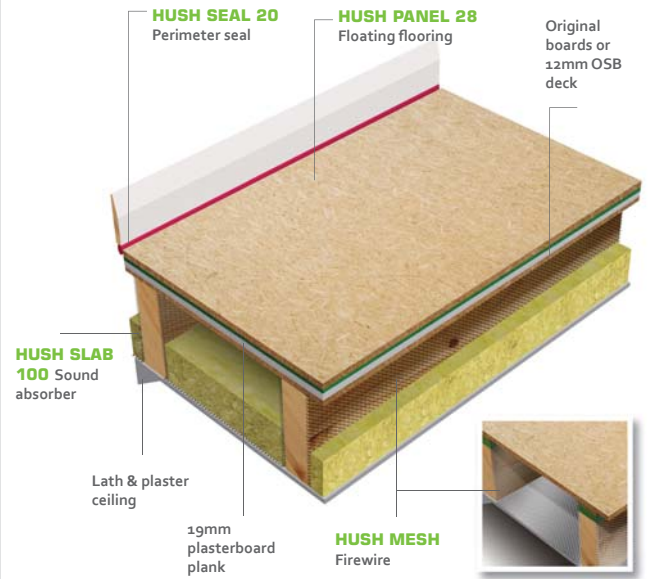
### SPECIFICATION

- Hush-Felt 25 Resilient Strip stapled to joist tops, with 18mm tongued and grooved flooring grade chipboard glued above using Hush-Bond, with all perimeters sealed using Hush-Seal 20.
- Hush-Mesh Firewire dressed down the sides of the joists and across the back of the ceiling in the form of trays.
- Hush-Slab 100 fitted between the joists with resting on the firewire tray.
- Hush-Fill 60 on a 9mm plywood shelf between the joists.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in refurbishment and conversion developments where a joisted structure and a full lath and plaster ceiling are in place.
- ✓ Provides a 1 hour fire resistance at ceiling level

## HD1030 HUSH SYSTEM LP



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
54	58	50

Results based on the Hush System HD1030 and a minimum of 200mm deep joists and a full lath and plaster ceiling in good condition.

### SPECIFICATION

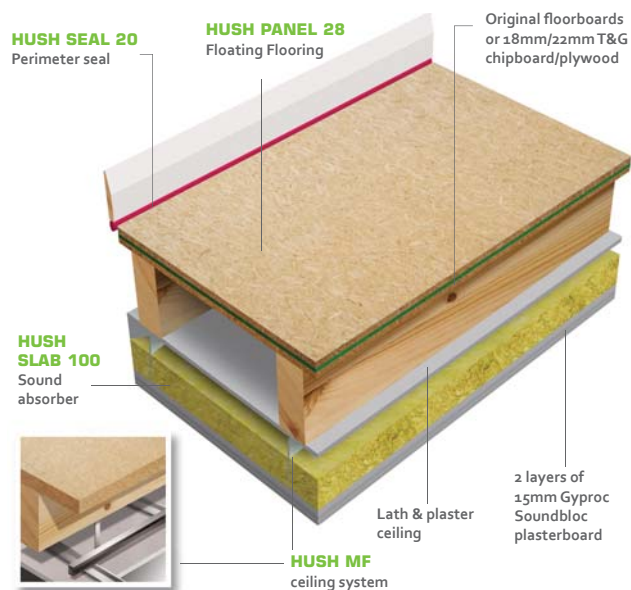
- Hush-Panel 28, all teegee joints glued using Hush-Bond, laid over 19mm plasterboard plank, laid over existing floorboards / OSB deck, with all perimeters sealed using Hush-Seal 20.
- Hush-Mesh Firewire dressed down the sides of the joists and across the back of the ceiling in the form of trays.
- Hush-Slab 100 fitted between the joists resting on the firewire tray.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ Refurbishment/Conversion projects with timber structures incorporating lath and plaster ceilings
- ✓ 1 hour fire resistance at ceiling level
- ✓ Achieves building regulations in conversion development without the need of a separate ceiling.



## HD1032 HUSH SYSTEM LP/MF



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
49	56	52

Results based on all Hush Components being used within the Hush System HD1032. Results also based on the lath and plaster ceiling to remain in tact and in good condition.

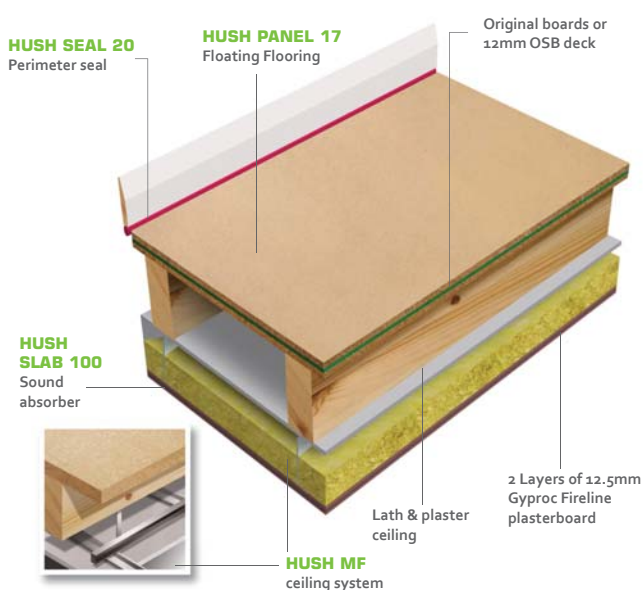
### SPECIFICATION

- Hush Panel 28, to be laid over existing floorboards or 18mm/22mm chipboard/plywood with all T&G joints glued using the Hush Bond Panel Adhesive. All perimeters of the Hush Panel to be sealed using Hush Seal 20 Perimeter Strip.
- Existing lath and plaster ceiling to be left in tact and made good if needed.
- Install the Hush MF ceiling to the underside of the lath and plaster ceiling construction. Ensure the Hush Acoustic Hangers are used and secured tightly to the existing joists. Ensure a 150mm void is created from the underside of the lath and plaster ceiling to the back of the plasterboard lining. Install the Hush Slab 100 Sound Absorber tightly together within the ceiling void.
- Install two layers of 15mm Gyproc Soundbloc to the underside of the Hush MF ceiling.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ Refurbishment/Conversion projects with timber structures incorporating lath and plaster ceilings
- ✓ 1 hour fire resistance at ceiling level
- ✓ Will achieve all UK Building Regulations standards for separating floors and allows the existing structure to remain intact.

## HD1033 HUSH SYSTEM LP/MF17



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
54	58	50

Results based on all Hush materials listed in Hush System HD1033 being used. Results are also based on a 200mm timber joists and all flanking junctions being treated.

### SPECIFICATION

- Hush-Panel 17 to be laid of existing floorboards or new timber deck with all T&G joints to be glued using Hush Bond Panel Adhesive and all perimeters sealed using Hush Seal 20 Perimeter Strip.
- Existing lath and plaster ceiling to be left in tact and made good if needed.
- Install the Hush MF Ceiling System to the underside of the lath and plaster ceiling construction. Ensure the Hush Acoustic Hangers are used and secured tightly to the existing joists. Ensure a 150mm void is created from the underside of the lath and plaster ceiling to the back of the plasterboard lining. Install the Hush Slab 100 Sound Absorber tightly together within the ceiling void.
- Install two layers of 15mm Gyproc Soundbloc to the underside of the Hush MF Ceiling.

### FEATURES

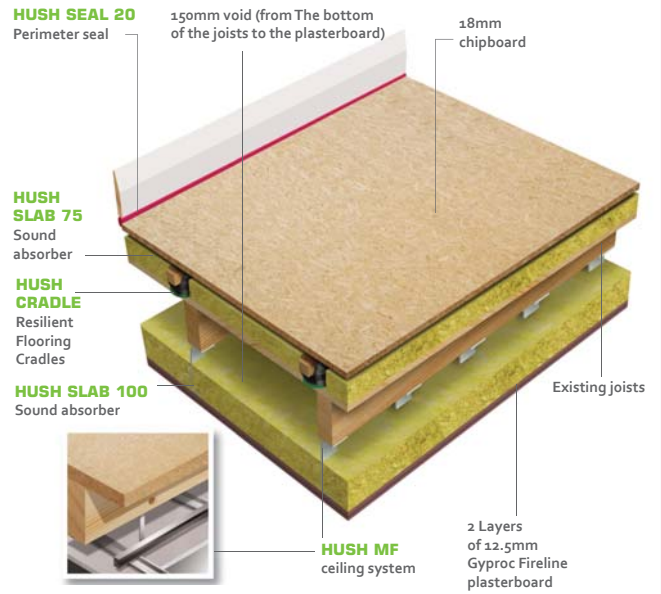
- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ Refurbishment/Conversion projects with timber structures incorporating lath and plaster ceilings
- ✓ 1 hour fire resistance at ceiling level
- ✓ Will achieve all UK Building Regulations Standards for separating floors and allows the existing structure to remain intact







## HD1031 HUSH CRADLE SYSTEM MF



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
50	58	53

Results based on all Hush materials listed in Hush System HD1031 being used. Results are also based on a 200mm timber joists and all flanking junctions being treated.

### SPECIFICATION

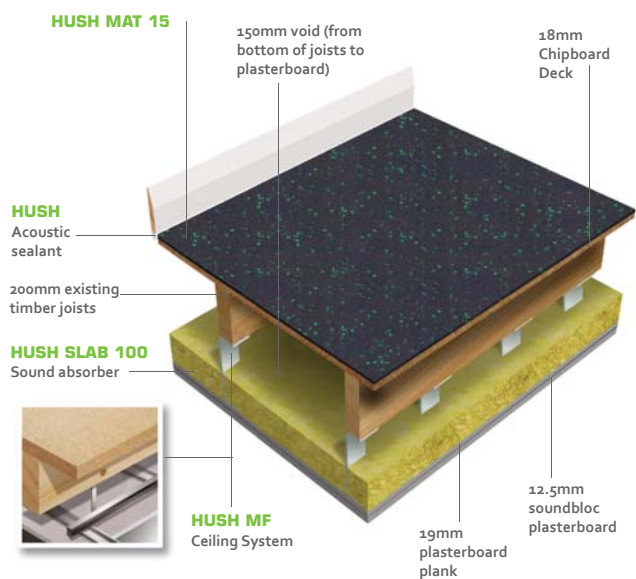
- 18mm chipboard, all teegee joints glued using Hush-Bond and sealed to all perimeters using Hush-Seal 20, laid over 47mm x 50mm timber battens, supported by Hush-Cradles at 450mm centres and height adjusted
- Hush-Slab 75 fitted between Hush-Cradle and batten runs, on top of existing 22mm floorboards
- MF ceiling system suspended from underside of joists creating 300mm void
- 2 layers of 12.5mm Fireline plasterboard fixed to the underside of the Hush Metal Frame Grid. Ensure the grid is suspended on Hush Acoustic Hangers. Hush Slab 100 Sound Absorber to be installed within ceiling void

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ Ideal for large industrial change of use conversions with uneven surfaces
- ✓ Provides a 1 hour fire resistance at ceiling level



## HD1048 HUSH MAT 15 MF SYSTEM



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
55	50	48

Results based on all Hush components being used within the HD1048 system and installed as per the installation guides. All flanking paths to be treated correctly.

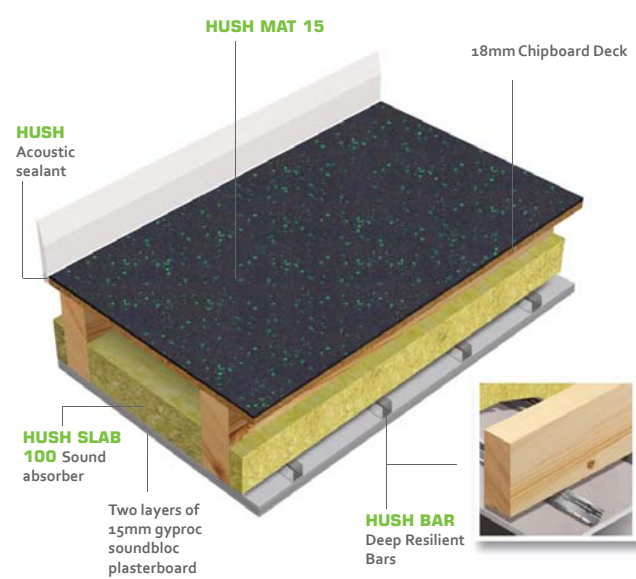
### SPECIFICATION

- Hush Mat 15 to be bonded to the timber structure using the Hush Contact Adhesive. Suitable floor finishes can then be installed over the Hush Mat 15 with the correct installation guidance. The timber deck over the joists can be the original floorboards or a 18mm/22mm T&G chipboard/plywood deck.
- Install the Hush-MF system to the underside of the joists creating a minimum 150mm void from the underside of the joists to the back of the plasterboard lining. Install the Hush Slab 100 Sound Absorber tightly together within the ceiling void.
- Install a double plasterboard layer to the underside of the Hush-MF system. The plasterboard lining should consist of 19mm Plasterboard Plank and 12.5mm Soundbloc. Seal all perimeters with the Hush Acoustic Sealant prior to skimming.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ A thin floor solution gaining excellent acoustic performance.
- ✓ A fully developed economical sound insulation system for use in separating floor/ceiling construction in Conversion, Refurbishment and New Build Development.
- ✓ Provides a 1 hour fire resistance at ceiling level
- ✓ Services can be ran within the Hush MF Ceiling System.

## HD1049 HUSH MAT 15 RB SYSTEM



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
47	61	49

Results based on all Hush Components being used and installed correctly as per the HD1049 details above. All flanking transmission paths to be correctly isolated.

### SPECIFICATION

- Hush Mat 15 to be bonded to the timber structure using the Hush Contact Adhesive. Suitable floor finishes can then be installed over the Hush Mat 15 with the correct installation guidance. The timber deck over the joists can be the original floorboards or a 18mm/22mm T&G chipboard/plywood deck.
- Hush-Slab 100 fitted tightly between the joists with no air gaps
- Hush-Bar Deep Resilient Bars fixed horizontally to the underside of joists at 600mm centres.
- Two layers of 15mm Soundbloc plasterboard to be installed to the underside of the Hush-Bar Deep Resilient Bars. Seal all perimeters with Hush Acoustic Sealant prior to skimming.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ A thin floor and ceiling construction that still complies to all UK Building Regulations.
- ✓ A fully developed economical sound insulation system to be used to form a separating floor construction in refurbishment and conversion development with timber joists
- ✓ Provides a 1 hour fire resistance at ceiling level
- ✓ Excellent impact performance due to the Hush Mat 15.

“ HUSH ACOUSTICS ARE GOOD WITH REFURBISHMENT AND CHANGE OF USE DEVELOPMENTS, ALWAYS MAKE IT SIMPLE. ”





## HD1044 HUSH BASEMENT SYSTEM



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
52	55	48

Results based on all Hush materials listed in the Hush System HD1044 being used. Results are also based on 200mm timber joists and all flanking junctions being treated.

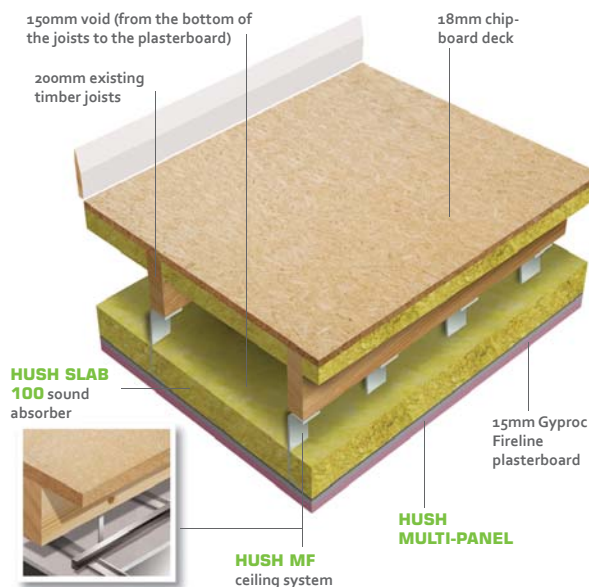
### SPECIFICATION

- Install Hush Slab 100 Sound Absorber within the joists. Ensure the Hush Slab is tightly packed between the joists and ensure there are no gaps.
- Hush Deep Resilient Bars to be fixed horizontally to the underside of the joists at 600mm centres.
- Install Hush-Multi Panel to the underside of the Hush Deep Resilient Bars.
- Over board the Hush-Multi Panel with 15mm Fireline plasterboard.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in conversion and refurbishment developments only.
- ✓ A fully developed economical sound insulation system for basement conversion development.
- ✓ Provides a 1 hour fire resistance at ceiling level

## HD1045 HUSH MULTI PANEL MF SYSTEM



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
62	55	49

Results based on all Hush elements to be installed as per the system data sheet and installed as per the Hush installation guides. All flanking transmission paths to be isolated correctly.

### SPECIFICATION

- Install Hush Slab 100 Sound Absorber within the joists. Ensure the Hush Slab is tightly packed between the joists and ensure there are no gaps.
- Install the Hush MF Ceiling to the underside of the joists. Ensure the Hush MF System is installed using the Hush Acoustic Hangers. A minimum 150mm void is to be created from the underside of the joists to the back of the ceiling lining.
- Hush slab 100 sound absorber to be installed within the ceiling grid. Ensure the Hush Slab is installed tightly within the MF Ceiling System with no gaps.
- Install the Hush Multi Panel to the underside of the Hush MF Ceiling System. Overboard the Hush Multi Panel with a layer of 15mm Fireline Plasterboard.

### FEATURES

- ✓ Complies with UK Building Regulations, Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Meets all UK Building Regulations without the use of a floating floor covering in existing buildings.
- ✓ Provides 1 hour fire resistance
- ✓ For use in change of use and refurbishment developments when there is no access to the floor above.





# SYSTEMS FOR MASONRY FLOOR STRUCTURES

## ISOLATING MASONRY FLOOR STRUCTURES CAN BE A MINEFIELD. THE IS BECAUSE THEY ALL PERFORM DIFFERENTLY.

Thickness, densities, whether it is an existing or new structure are all factors that can determine how good the structure will be performing acoustically. There are also different variables in structure type with concrete plank, insitu-slabs and beam and block floors all commonly used within the UK Building Industry.

Due to all these variations it is key to ensure the correct system is used to comply with the minimum standards. We have a number of systems for masonry floor structures that will cover all eventualities. For further advice on which system to specify then please speak to our expert technical team.

### HD1007 HUSH SYSTEM HDC



#### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
57	55	48

Results based on the full Hush System HD1007 being used in conjunction with concrete structures at the specified density.

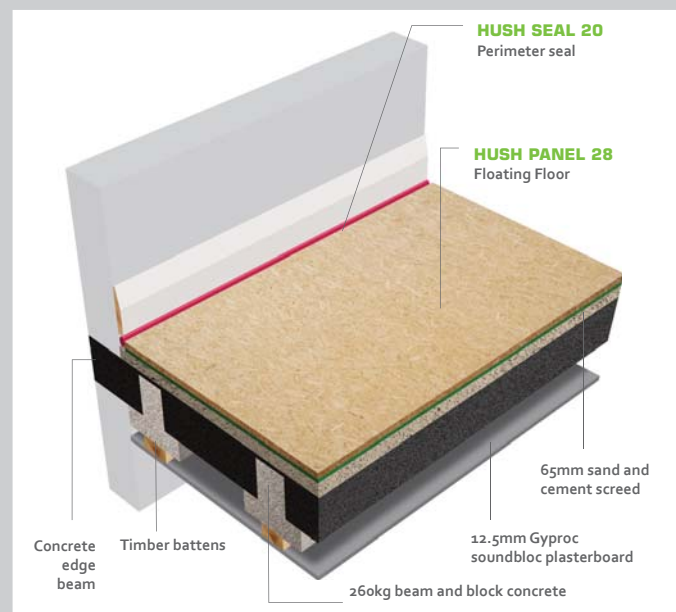
#### SPECIFICATION

- Hush-Panel 28, all T&G joints glued using Hush-Bond, with all perimeters sealed using Hush-Seal 20, laid over 200mm in situ concrete slab (400 kgs/m<sup>2</sup>).
- Timber battens fixed to the underside of the concrete at required centres.
- One layer of 12.5mm Gyproc Soundbloc or Fireline plasterboard secured to the timber battens. Seal all perimeters prior to skimming.

#### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in new build, conversion or refurbishment projects based on concrete structures at 400 kg/m<sup>2</sup> minimum.

### HD1009 HUSH SYSTEM B/B



#### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
50	54	48

Results based on full Hush System HD1009 used in conjunction with a beam and block construction at the required mass per m<sup>2</sup>.

#### SPECIFICATION

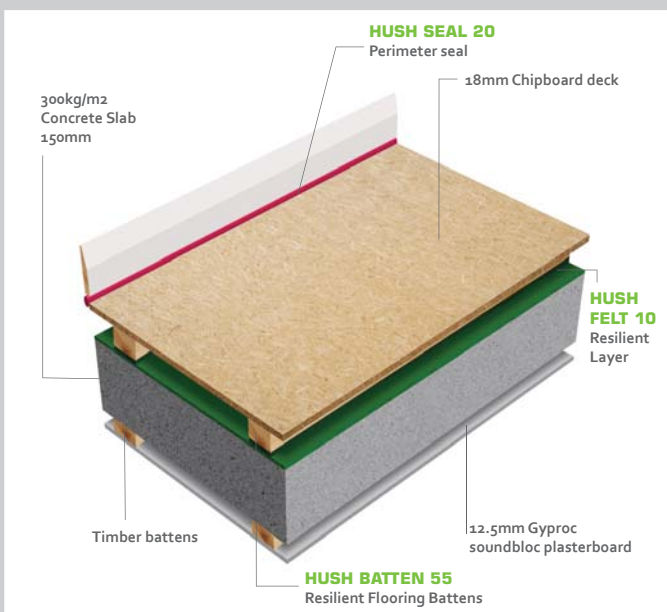
- Hush-Panel 28, all T&G joints glued using Hush-Bond and sealed to all perimeters using Hush-Seal 20, laid over 50mm screed, with 260 kg/m<sup>2</sup> beam and block concrete below.
- Timber battens fixed to the underside of the concrete at required centres.
- One layer of 12.5mm Gyproc Soundbloc or Fireline plasterboard secured to the timber battens. Seal all perimeters prior to skimming.

\* Ceiling treatment may need to be upgraded depending on overall structure density

#### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in new build or refurbishment projects based on beam and block concrete structures

## HD1010 HUSH BATTEN SYSTEM



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
56	56	47

Results based on full Hush System HD1010 being used in conjunction with the correct thickness and density of concrete structure.

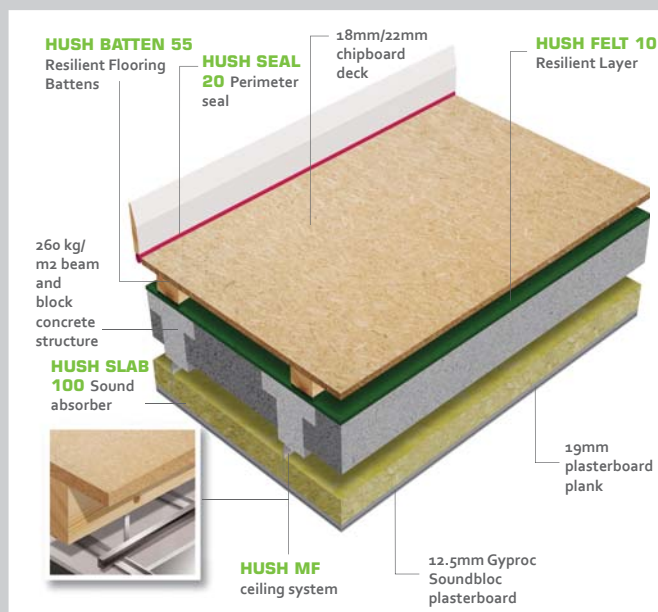
### SPECIFICATION

- Hush-Battens loose laid at required centres over a layer of Hush-Felt 10 Resilient Layer
  - T&G chipboard/plywood, to suit batten centres and loadings, to be laid over Hush-Battens using Hush Bond and screw fixings and sealed at all perimeters using the Hush Seal 20 perimeter strip
  - Timber battens fixed to the underside of the concrete at required centres
  - One layer of 12.5mm Gyproc Soundbloc or Fireline plasterboard secured to the timber battens. Seal all perimeters prior to skimming
- Ceiling system to be upgraded if the structure is not at required density

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in new build, conversion or refurbishment developments that have concrete structures of approximately 300 kg/m<sup>3</sup> mass per unit area.

## HD1015 HUSH BATTEN 55 SYSTEM B/B



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
50	54	51

Results based on all Hush components being used for the Hush System HD1015. System also requires correct density of beam and block and flanking wall issues need to be addressed.

### SPECIFICATION

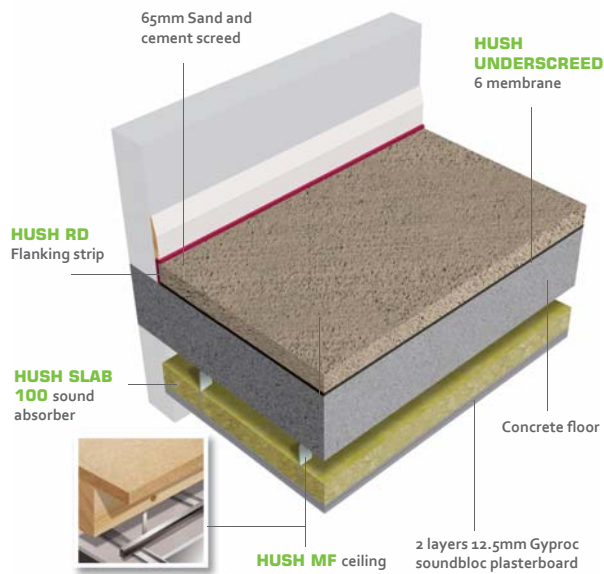
- Hush-Battens loose laid at required centres over a layer of Hush-Felt 10 Resilient Layer
- T&G chipboard/plywood, to suit batten centres and loadings, to be laid over Hush-Battens using Hush Bond and screw fixings and sealed at all perimeters using the Hush Seal 20 perimeter strip
- Hush MF system to be installed to the underside of the beam and block structure. The Hush MF ceiling to create a 150mm void from the underside of the beams to the back of the plasterboard lining. Hush Slab 100 Sound Absorber to be installed tightly together within the ceiling void
- Install two layers of plasterboard to the underside of the Hush MF ceiling. The plasterboard lining should be 19mm Plasterboard Plank and 12.5mm Soundbloc

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in new build, conversion or refurbishment developments that have a beam and block structure with a minimum density of 260 kg/m<sup>2</sup>
- ✓ Creates service voids above and below the floor structure
- ✓ Excellent acoustic performance due to voids above and below the structure



## HD1042 HUSH UNDERSCREED 6 SYSTEM



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
48	51	49

Results based on the full Hush System HD1042 being using and installed as listed above. All flanking paths must be treated correctly.

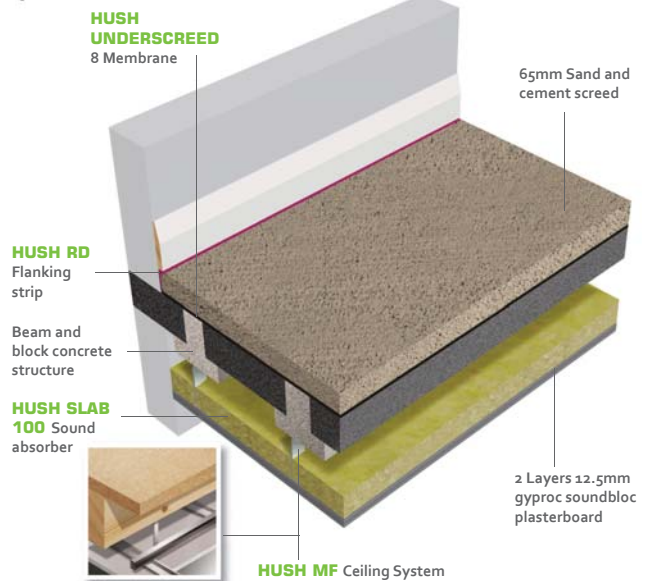
### SPECIFICATION

- Install the Hush Underscreed 6 Acoustic Membrane over the masonry structure. Ensure the Hush Underscreed is installed as per the installation guide. The screed is then laid over the the Hush Underscreed Membrane. No screed should bridge the masonry construction. The perimeters of the screed are to be isolated using the Hush RD Flanking Strip.
- Install the Hush MF Ceiling to the underside of the masonry construction. Ensure a 150mm void is created from the underside of the masonry to the back of the plasterboard lining.
- Install the Hush Slab 100 Sound Absorber within the Hush MF Ceiling System.
- Install a double layer of 12.5mm Soundbloc Plasterboard to the underside of the Hush MF Ceiling System.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland)
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in refurbishment, conversion and new build development when a masonry structure is in place
- ✓ Achieves a 1 hour fire rating

## HD1047 HUSH SYSTEM UNDERSCREED B/B



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
48	51	49

Results based on the full Hush System HD1047 being using and installed as listed above. All flanking paths must be treated correctly.

### SPECIFICATION

- Install the Hush Underscreed 8 Acoustic Membrane over the beam and block structure. Ensure the Hush Underscreed is installed as per the installation guide. The screed is then laid over the the Hush Underscreed Membrane. No screed should bridge the beam and block construction. The perimeters of the screed are to be isolated using the Hush RD Flanking Strip.
- Install the Hush MF Ceiling to the underside of the beam and block construction. Ensure a 150mm void is created from the underside of the beam and block to the back of the plasterboard lining.
- Install the Hush Slab 100 Sound Absorber within the Hush MF Ceiling System.
- Install a double layer of 12.5mm Soundbloc Plasterboard to the underside of the Hush MF Ceiling System.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland)
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in refurbishment, conversion and new build development when a beam and block structure is in place
- ✓ Achieves a 1 hour fire rating

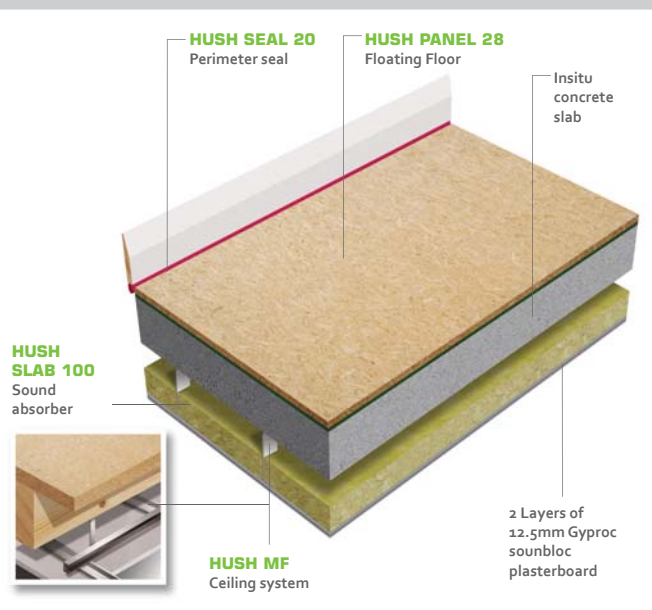


I APPRECIATED THE MINIMALISTIC DESIGN, YET BOLD COLOURS TO REALLY GIVE THE ROOM A SENSE OF VIBRANCY. I WAS PARTICULARLY HAPPY WITH THE QUICK AND EFFICIENT INSTALLATION BY THE HUSH INSTALLATION TEAM.





## HD1018 HUSH OVERLAY FOR MASONRY



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
45	62	55

Results based on the full Hush System HD1018 being used and all flanking noise paths to be treated.

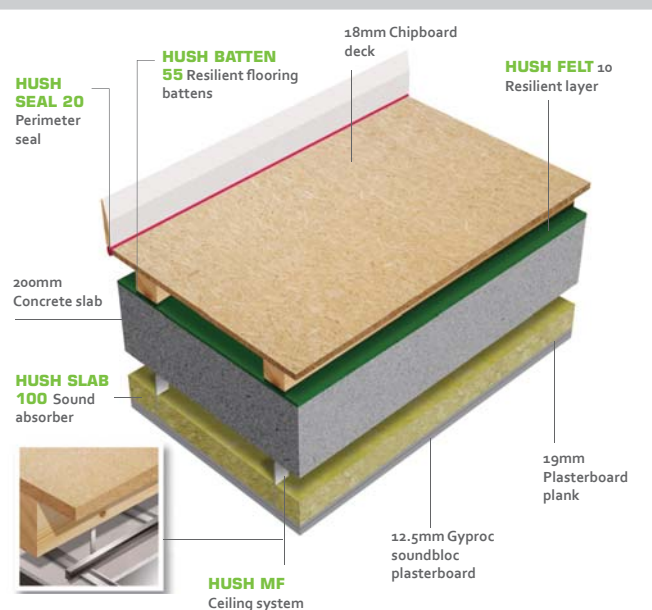
### SPECIFICATION

- Hush-Panel 28, all T&G joints glued using Hush-Bond, with all perimeters sealed using Hush-Seal 20, laid over 200mm in situ concrete slab.
- Install the Hush MF Ceiling to the underside of the masonry construction. Ensure a 150mm void is created from the underside of the beam and block to the back of the plasterboard lining.
- Install the Hush Slab 100 Sound Absorber within the Hush MF Ceiling System.
- Install a double layer of 12.5mm Soundbloc Plasterboard to the underside of the Hush MF Ceiling System.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in new build, conversion or refurbishment projects based on concrete structures at 400 kg/m<sup>2</sup> minimum.

## HD1037 HUSH BATTEN 55 SYSTEM MF



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
51	55	49

Hush Batten 55 System MF HD1037 results are based on all Hush components being used as the data shown above and installed as per the Hush installation guides.

### SPECIFICATION

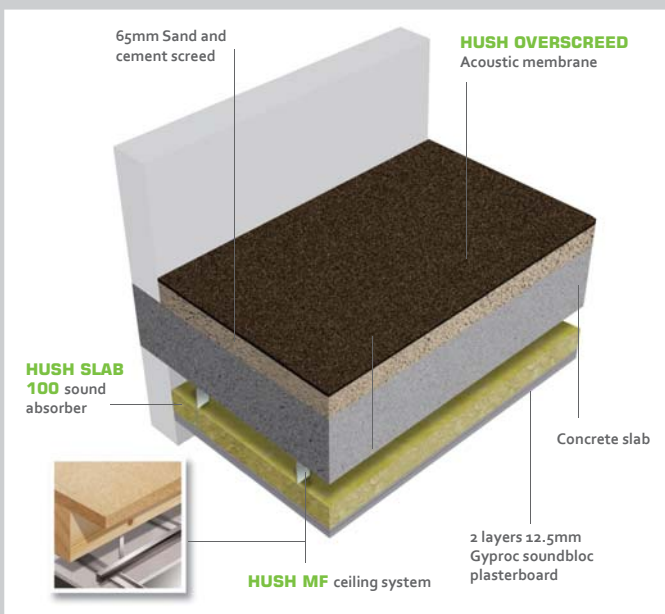
- Install Hush Batten system over concrete structure. Ensure Hush Felt 10 resilient layer covers the entire floor area. Hush Batten 55 Acoustic Battens to be installed felt face down over the Hush Felt layer at required centres. 18mm/22mm T&G chipboard to be screwed and glued fixed to the top of the Hush Batten 55. The perimeters of the chipboard are to be isolated using the Hush range of flanking strips to suit.
- Install Hush-MF system to the underside of the concrete structure. Ensure a minimum 150mm void is created from the back of the concrete structure to the back of the plasterboard lining. Install Hush Slab 100 Sound Absorber tightly together within the ceiling void.
- Install a double plasterboard layer to the underside of the Hush-MF system. The plasterboard lining should consist of 19mm Plasterboard Plank and 12.5mm Soundbloc. Seal all perimeters with the Hush Acoustic Sealant prior to skimming.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ A fully developed economical sound insulation system for use in separating floor/ceiling construction in Conversion, Refurbishment and New Build Development.
- ✓ Achieves a 1 hour fire resistance
- ✓ Creates a service void above and below the structure
- ✓ Excellent airborne and impact performance due to floor and ceiling voids



## HD1043 HUSH SYSTEM OVERSCREED



### ACOUSTIC PERFORMANCE

Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
48	64	53

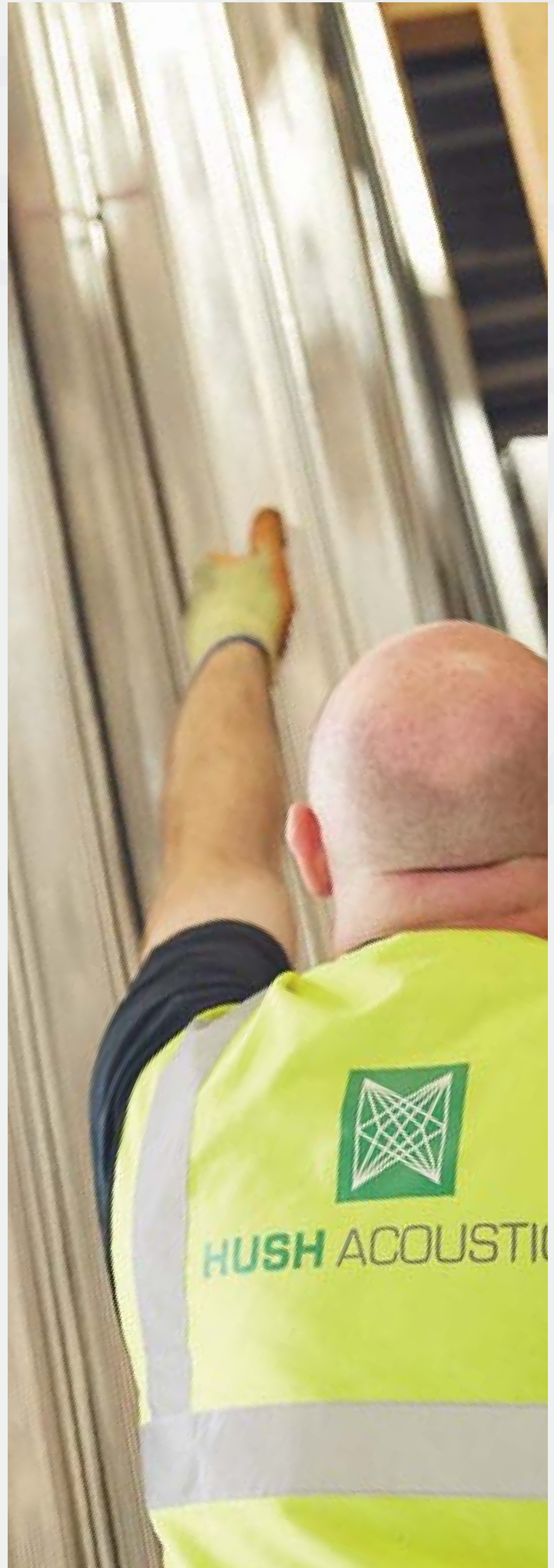
Results based on the full Hush System HD1043 to be installed as described with all flanking noise paths treated if needed.

### SPECIFICATION

- Hush Overscreed Acoustic Membrane to be bonded to the screed using the Hush Contact Adhesive. The Hush Overscreed Acoustic Membrane is to cover the entire screeded floor. Suitable floor finishes to be applied over the Hush Overscreed Acoustic Membrane
- The Hush MF Ceiling system to be installed to the underside of the concrete structure. A clear 150mm void is to be created.
- The Hush Slab 100 Sound Absorber is to be installed within the MF Ceiling System, leaving a clear 50mm void.
- Install two layers of 12.5mm Soundbloc to the underside of the Hush MF Ceiling System. The boards are to be skim finished.

### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ A fully developed economical sound insulation system between separating floors
- ✓ For use in refurbishment, conversion or new build development with a concrete/screed structure
- ✓ Provides a 1 hour fire resistance at ceiling level
- ✓ Creates a service void at ceiling level.





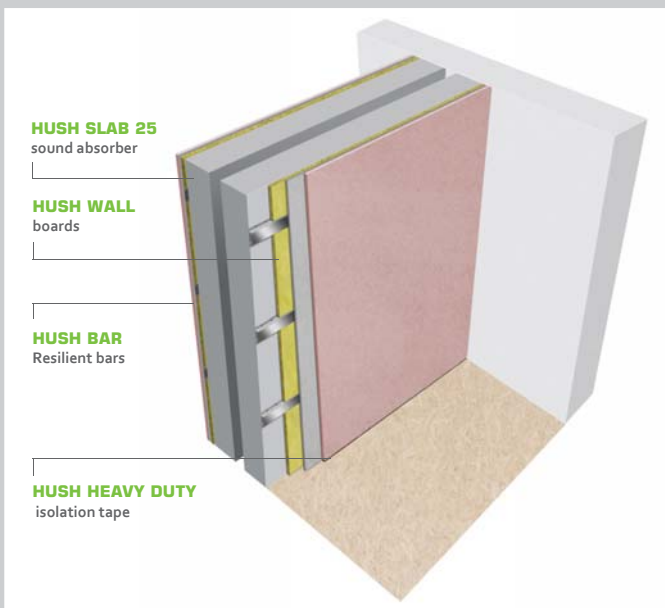
# WALL STRUCTURES

## SEPARATING WALL STRUCTURES VARY FROM DEVELOPMENT TO DEVELOPMENT AND DEPEND ON SO MANY THINGS.

Structural capabilities, contractors preference, acoustic performance levels, what the walls are separating and overall construction depths are a number of things that can determine what wall construction will be used to separate two adjacent spaces. There are also different structures available including timber stud, metal stud, masonry block

and masonry brick constructions. We have designed a set of wall systems that we know achieve the required minimum standards of the UK Building Regulations and should extra advice be needed to specify the correct system then the Hush Technical team are on hand.

### HD1040 HUSH WALL SYSTEM



#### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
58	48

Results based on all Hush materials listed in Hush System HD1040 being used.

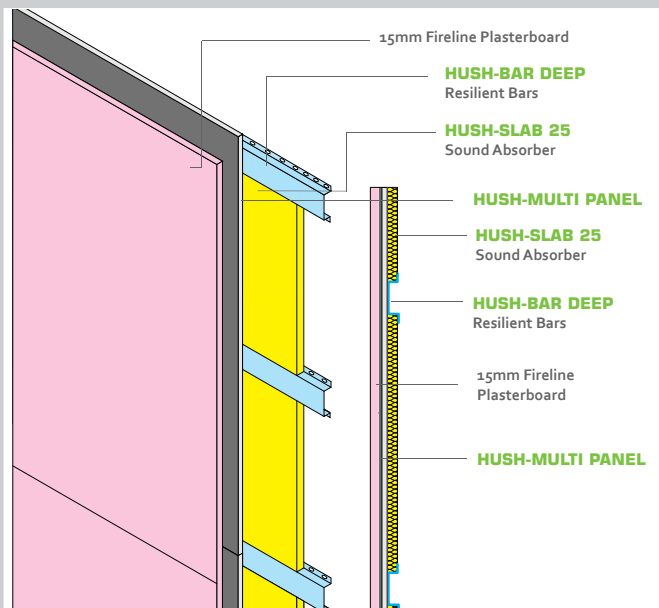
#### SPECIFICATION

- Hush-Wall Boards, all gaps filled with acoustic mastic and sealed at all perimeters with Hush-Isolation Tape, fixed horizontally to Hush-Bar Resilient Bars with 32mm dry wall screws.
- Hush-Slab 25, or thickness to suit, fitted into cavity between studs or tightly between Hush-Bars when applying to brick or block
- Hush-Bar Resilient Bars fixed horizontally at 450mm centres to stud or wall. Scrim joints and seal all perimeters prior to skimming.

#### FEATURES

- ✓ Complies with UK Building Regulations Approved Document E (England & Wales), Part G (Northern Ireland) and Section 5 (Scotland).
- ✓ Hush Wall System can be used on timber stud, metal stud, brick and block walls.
- ✓ High standards of airborne sound reduction
- ✓ Can reduce both flanking and direct sound transmission
- ✓ Minimum loss of space
- ✓ Comprises of a composite three layered board 1800mmx900mmx27mm and a resilient bar system

### HD1041 HUSH WALL LINING SYSTEM



#### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
58	48

Results based on all Hush materials listed in Hush System HD1041 being used.

#### SPECIFICATION

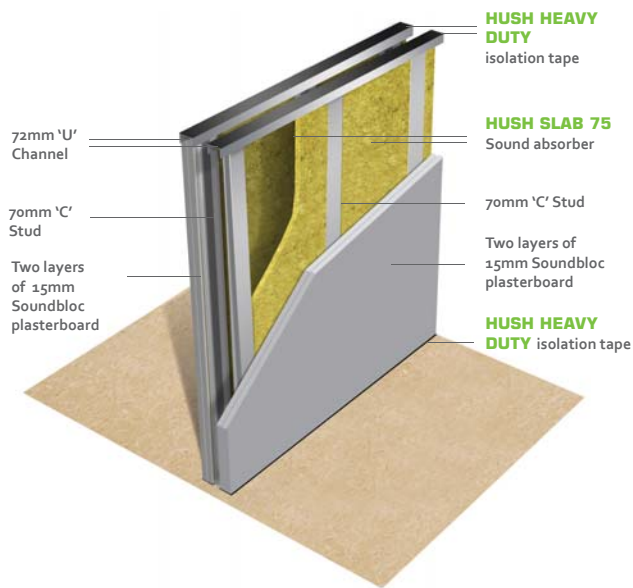
- 15mm Fireline to be installed over the Hush-Multi panel, ensuring that all joints are staggered. All perimeters are to be sealed using the Hush-Isolation Tape and the Hush acoustic sealant. Both boards to be fixed to the Hush- Deep Resilient Bars.
- Hush-slab 25 sound Absorber to be fitted between the Hush-Bars.
- Hush-Bar Deep Resilient Bars fixed horizontally at 450mm centres to the wall.

#### FEATURES

- ✓ Approved Document E
- ✓ Timber stud, steel stud, brick or block walls
- ✓ High standards of airborne sound reduction
- ✓ Can reduce both flanking and direct sound transmission
- ✓ Minimum loss of space



## HD1052 TWIN METAL STUD WALL



### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
63	60

Results based on all Hush materials listed in the Hush System HD1052 data sheet beings used. Results are also based on correct installation and all flanking paths being treated.

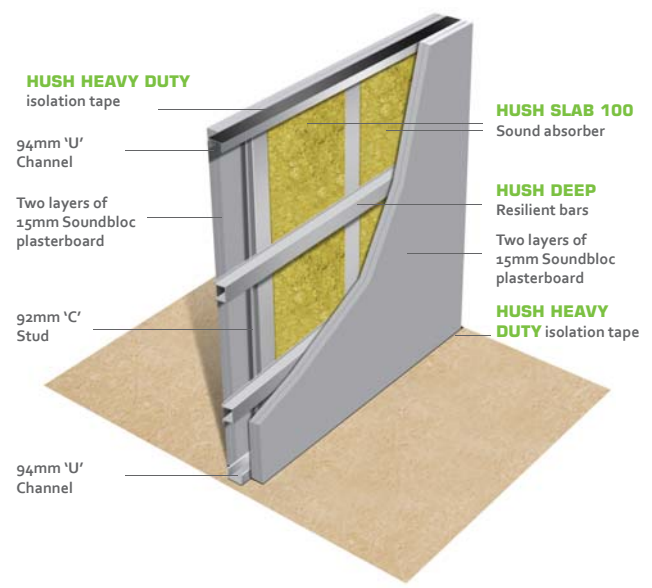
### SPECIFICATION

- Construct two frames of 70mm metal stud and track. Ensure the metal stud and track is isolated from the floor and ceiling structure by the Hush Heavy Duty Isolation Tape.
- Ensure there is a minimum 50mm clear gap between the two stud frames. This gap should remain clear.
- Insulate within each stud frame using the Hush Slab 75 Sound Absorber. Ensure the Hush Slab is installed within the stud frames only and not the clear air gap between the stud frames.
- Face each stud frame with two layers of 15mm Soundbloc Plasterboards. Ensure the perimeters of the plasterboards are sealed using the Hush Acoustic Sealant.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in new build, conversion and refurbishment developments
- ✓ A tried and tested method of creating a separating lightweight stud wall
- ✓ Excellent acoustic performance due to the clear void between the two stud frames
- ✓ Provides a 1 hour fire resistance

## HD1053 SINGLE METAL STUD WALL



### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
55	49

Results based on all Hush materials listed in the Hush System HD1053 data sheet beings used. Results are also based on correct installation and all flanking paths being treated.

### SPECIFICATION

- Construct a single frame of 92mm/94mm metal stud and track. Ensure the stud and track is isolated from the floor and ceiling structure using the Hush Heavy Duty Isolation Tape.
- Insulate within the stud using the Hush Slab 100 Sound Absorber. Ensure the Hush Slab is installed tightly within the stud frame.
- Install the Hush Bar Deep Resilient Bars to one side of the stud frame.
- Face both sides of the wall with two layers of 15mm Soundbloc Plasterboards. Ensure the plasterboard fixings attaching the Soundbloc to the Hush Deep Resilient Bars do not penetrate through to the stud work. Ensure the perimeters of the plasterboards are sealed with the Hush Acoustic Sealant.

### FEATURES

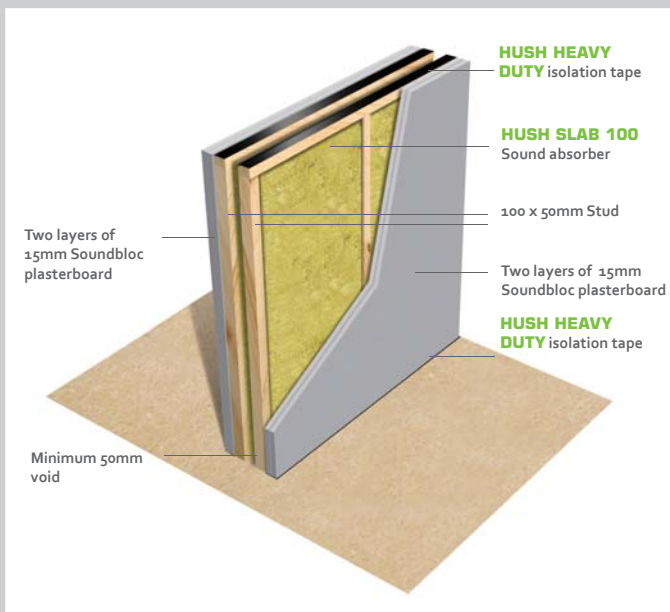
- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in new build, conversion and refurbishment developments
- ✓ A tried and tested method of creating a separating lightweight stud wall
- ✓ Excellent acoustic performance levels for a single stud wall construction due to the performance of the Hush Deep Resilient Bar
- ✓ Provides a 1 hour fire resistance



THE HUSH INSTALLATION TEAM ARRIVED ON SITE AT 06:05 AM, DISCUSSED THE INSTALLATION WITH ME AND HAD COMPLETED THE INSTALLATION BY 8AM.



## HD1054 DOUBLE TIMBER STUD WALL



### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
62	55

Results based on all Hush materials listed in the Hush System HD1054 data sheet being used. Results are also based on correct installation and all flanking paths being treated

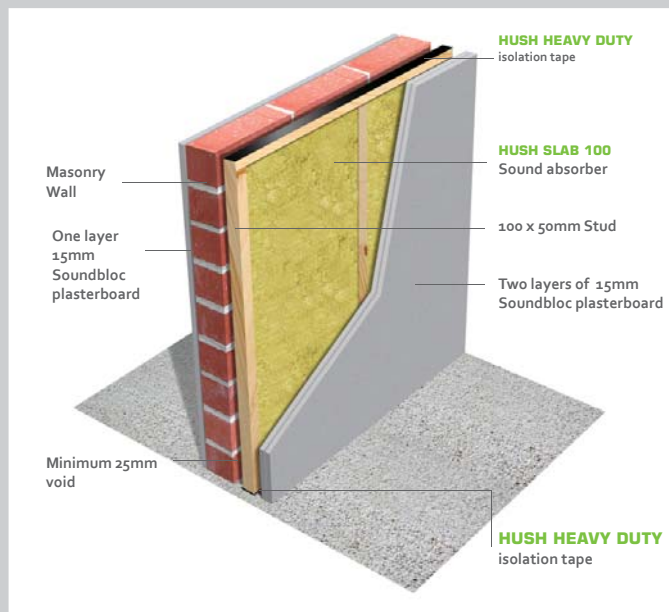
### SPECIFICATION

- Construct two frames of 50x100mm timber stud work. Ensure the stud and track is isolated from the floor and ceiling structure using the Hush Heavy Duty Isolation Tape.
- Ensure there is a minimum 50mm clear gap between the two stud frames. This gap should remain clear.
- Insulate within the stud frames using the Hush Slab 100 Sound Absorber. Ensure the Hush Slab is installed tightly within the stud frame and the cavity between the frames remains clear.
- Face each stud frame with two layers of 15mm Soundbloc Plasterboards. Ensure the perimeters of the plasterboards are sealed using the Hush Acoustic Sealant.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in new build, conversion and refurbishment developments
- ✓ A tried and tested method of creating a separating lightweight stud wall
- ✓ Excellent acoustic performance due to the clear void between the two stud frames
- ✓ Provides a 1 hour fire resistance

## HD1055 MASONRY WALL WITH STUD LINING



### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
64	60

Results based on all Hush materials listed in the Hush System HD1055 data sheet being used. Results are also based on correct installation and all flanking paths being treated.

### SPECIFICATION

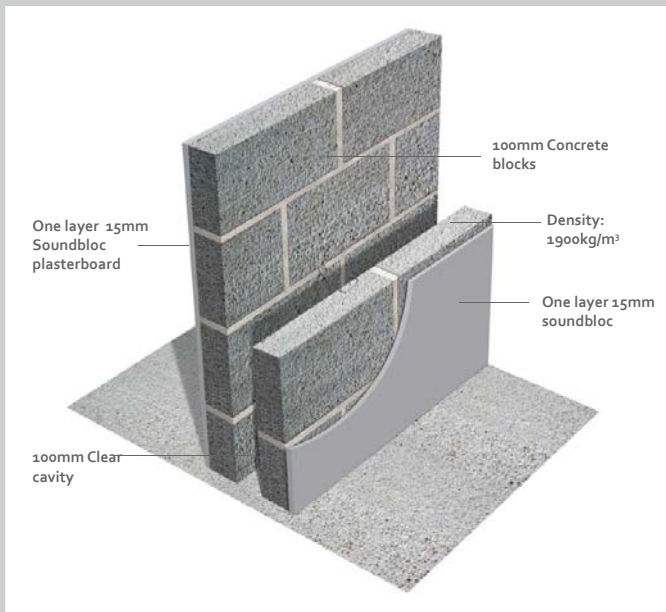
- Construct a single frame of 50x100mm timber stud work independently from the existing masonry wall. Ensure there is a clear 25mm minimum gap from the existing masonry to the stud frame. Ensure the stud and track is isolated from the floor and ceiling structure using the Hush Heavy Duty Isolation Tape.
- Insulate within the stud using the Hush Slab 100 Sound Absorber. Ensure the Hush Slab is installed tightly within the stud frame and the gap from the timber frame to the masonry wall should remain clear at all time.
- Face the masonry side and the new timber frame with two layers of 15mm Soundbloc Plasterboards. Ensure the perimeters of the plasterboards are sealed with the Hush Acoustic Sealant.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in new build, conversion and refurbishment developments
- ✓ A tried and tested method of upgrading an existing masonry wall to separating wall standards
- ✓ Excellent acoustic performance due to the clear void between the existing masonry wall and the new timber stud wall
- ✓ Provides a 1 hour fire resistance



## HD1056 BLOCK CAVITY BLOCK WALL



### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
58	48

Results based on all Hush materials listed in the Hush System HD1056 data sheet being used. Results are also based on correct installation and all flanking paths being treated.

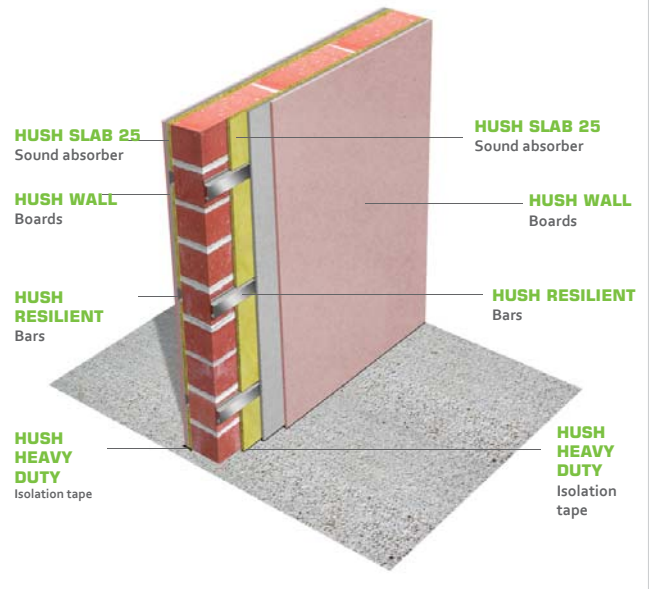
### SPECIFICATION

- Construct a block cavity block wall from two dense concrete blocks at a density of 1900 kg/m<sup>3</sup> minimum.
- Create a clear 100mm gap between both 100mm block walls. This gap should remain clear of mortar spots at all time.
- Face both sides of the masonry walls with 15mm Soundbloc Plasterboard. Ensure the perimeters of the plasterboards are sealed with the Hush Acoustic Sealant.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in new build, conversion and refurbishment developments
- ✓ A tried and tested method of creating a dense block cavity block masonry wall.
- ✓ Excellent acoustic performance due to the mass of the blocks and the clear 100mm cavity
- ✓ Provides a 1 hour fire resistance

## HD1057 HUSH WALL SYSTEM ON EXISTING MASONRY



### ACOUSTIC PERFORMANCE

Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
62	55

Results based on all Hush materials listed in the Hush System HD1057 data sheet being used. Results are also based on correct installation and all flanking paths being treated.

### SPECIFICATION

- Install the Hush Wall System in full to either side of the existing masonry.
- Fit the Hush Bar Resilient Bars to both sides of the wall, insulating within the bars using the Hush Slab 25 Sound Absorber.
- Face the resilient bars with the Hush Wallboard. Ensure the fixings attaching the Hush Wallboard to the Hush Resilient Bars do not penetrate through to the masonry. Ensure the perimeters of the Hush Wallboard are sealed using the Hush Heavy Duty Isolation Tape and the Hush Acoustic Sealant as per the Hush Wall System data sheet.

### FEATURES

- ✓ Complies to UK Building Regulations Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland)
- ✓ Can be used in new build, conversion and refurbishment developments
- ✓ A tried and tested thin solution to upgrade existing masonry walls.
- ✓ Excellent acoustic performance levels using a thin acoustic wall lining system.
- ✓ Provides a 1 hour fire resistance.





# BUILDING REGULATIONS ENGLAND & WALES

**THE NUISANCE OF NOISE IS REGARDED AS A HEALTH AND SAFETY ISSUE FOR PERSONS LIVING IN DWELLINGS AND ALL OCCUPANTS OF A DWELLING SHOULD BE ALLOWED TO FOLLOW NORMAL DOMESTIC ACTIVITIES, INCLUDING SLEEP AND REST, WITHOUT THREAT TO THEIR HEALTH FROM NOISE.**

Noise is transmitted in buildings by both airborne and impact sound sources and the UK Building Regulations requires that both these noise types are controlled. Practical guidance to meet with the Building Regulation requirements is given within Approved Document E (England & Wales), Section 5 (Scotland) and Part G (Northern Ireland).

Nuisance noise applies to all separating floor, ceilings and walls between dwellings and also for internal floors, ceilings and walls for a single dwelling.

## AIRBORNE SOUND

Airborne sound sources produce noise by vibrating the surrounding air particles. For example, speech, televisions and home entertainment systems create airborne noise. Airborne noise will travel through a floor, ceiling and wall structure. An airborne acoustic test will need to be passed to ensure compliance to the minimum standards in all UK Building Regulations for separating floors, ceilings and walls between separate dwellings. It is imperative that the structure is isolated and all weak points treated if airborne noise is to be reduced.

## IMPACT SOUND

Impact sound sources produce noise by direct physical excitation of part of a building. For example footsteps on a floor produce impact sound. Impact sound is best treated at the source of the problem, most commonly with an acoustic floor system. An acoustic impact test will need to be passed to ensure compliance with all the minimum UK Building Regulations requirements.

## FLANKING SOUND TRANSMISSION

Flanking transmission occurs when sound is transmitted from one space to another indirectly, through adjoining parts of the structure. For example, impact sound may be transmitted from one room to another through a timber floor, but also through the supporting wall.

Flanking transmission is always a potential problem within any structure, in particular, buildings being converted, and depending on the intensity of the acoustic energy received via flanking transmission paths, the effectiveness of sound insulation of separating partitions can be much lower than expected from their construction.

Careful consideration must be given to the effect of flanking transmission within any building and all potential flanking paths must be identified and eliminated prior to the installation of any sound insulation system.

## ENGLAND & WALES

England & Wales currently fall under the Approved Document E guidelines for residential dwellings. The latest document changes came in to force in 2010. There was some slight amendments to the document in 2010. The information detailed by Hush Acoustics is in line with the most recent document.

## ACOUSTIC TESTING – ENGLAND & WALES

Acoustic testing was the major change to Document E in 2010. It became compulsory to test all change of use/conversion residential projects and any new build residential projects that had not been constructed by the means of Robust Details

At least 10 percent of each type of all new residential properties are tested to determine fulfillment of the regulations and pre-completion testing must always be carried out by an accredited acoustic engineer.

Hush Acoustics do offer a UKAS accredited testing service and we can arrange sound testing for you.

## ROBUST DETAILS – ENGLAND & WALES

Robust Details (RD) are high performance separating wall and floor constructions that are expected to be sufficiently reliable not to need the check provided by pre-completion testing (PCT). A set of design details which achieve compliance with requirement E1 have been approved by Robust Details Ltd.

Builders intending to use any of these design details must register the project with Robust Details Ltd and follow, to the letter, procedures issued by Robust Details Ltd.

Robust Details can be a minefield and something that Hush Acoustics can offer assistance on.

**TABLE 0.1A** Dwelling-houses and flats – performance standards for separating walls, separating floors, and stairs that have a separating function

	Airborne sound insulation sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum values)	Impact sound Insulation $L'_{nT,w}$ dB (Maximum values)
Purpose built dwelling - houses and flats		
Walls	45	-
Floors & stairs	45	62
Dwelling - houses and flats formed by material change of use		
Walls	43	-
Floors & stairs	43	64

**TABLE 0.1B** Rooms for residential purposes – performance standards for separating walls, separating floors, and stairs that have a separating function

	Airborne sound insulation sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum values)	Impact sound Insulation $L'_{nT,w}$ dB (Maximum values)
Purpose built dwelling - houses and flats		
Walls	43	-
Floors & stairs	45	62
Rooms for residential purposes formed by a material change of use		
Walls	43	-
Floors & stairs	43	64

**TABLE 0.2** Laboratory values for new internal walls and floors within dwelling-houses, flats and rooms for residential purposes, whether purpose built or formed by material change of use

	Airborne sound insulation $R_w$ dB (Minimum values)
Walls	40
Floors	40

For further information on Approved Document E visit [www.communities.gov.uk](http://www.communities.gov.uk) or [www.planningportal.gov.uk](http://www.planningportal.gov.uk)

## SCOTLAND

Scotland currently falls under Section 5 of the Scottish Building Standards for residential dwellings. The latest document changes came in to force in 2010. The information detailed by Hush Acoustics is in line with the most recent document.

The primary change to the document in 2010 are listed as follows,

To limit transmission of sound to a level that will not threaten the health of occupants of residential dwellings.

Improved dB ratings for separating floors and walls in multi-occupancy domestic and non-domestic buildings.

Applies to Non-domestic buildings as well as domestic.

A more detailed testing regime.

Robust Details introduced as a secondary building method for new build residential developments.

More focus put on home improvements that effect sound transmission within existing residential units.

## SECTION 5 ACOUSTIC TESTING – SCOTLAND

Acoustic testing was the major change to Section 5 of the Scottish Building Standards in 2010. A more detailed testing regime was set up to ensure enough testing will be carried out depending on the development type. Hush Acoustics can explain this testing regime in more detail if needed. Hush Acoustics do offer a UKAS accredited testing service and we can arrange sound testing for you.

The following tables explain the minimum requirements of Section 5

<b>TABLE 1</b>			
Minimum standards for section 5 of the Scottish building standards - Non Traditional Buildings.			
New Build & Conversion			
	Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
Walls	56	56	56
Floors & Stairs	56	56	56

<b>TABLE 2</b>			
Minimum standards for section 5 of the Scottish building standards - Traditional Buildings.			
New Build & Conversion			
	Impact $L'_{nT,w}$ dB	Airborne $D_{nT,w}$ dB	Airborne $D_{nT,w} + C_{tr}$ dB
Walls	58	53	53
Floors & Stairs	58	53	53

<b>TABLE 3</b>	
Laboratory values for new internal walls and floors within dwelling-houses, flats and rooms for residential purposes, whether purpose built or formed by material change of use.	
New Build & Conversion	
	Airborne $D_{nT,w}$ dB
Walls	43
Floors & Stairs	43

**ROBUST DETAILS – SCOTLAND**

Robust Details (Scotland) was accepted as an alternative construction method for residential projects in 2012. Robust Details is a pattern book that has a list of systems that have been through rigorous testing to ensure that they achieve minimum standards that are in excess of the minimum standards detailed in Section 5 of the Scottish Building Standards. As the systems achieve higher acoustic performance levels than the minimum standards it allows the acoustic testing element upon completion to be removed. There are benefits to Robust Details and there are limitations. It has to be right of the development in everyway. Hush Acoustics can advise on what is the best Robust Details solution for the project.

**STATEMENT OF SUSTAINABILITY – SCOTLAND**

The statement of sustainability was introduced into the Scottish Building Standards as a method of achieving sustainable buildings that last longer and are more efficient.

Within this document it states that every building must be constructed in such a way that:

With regard to a dwelling or school building containing classrooms, a level of sustainability specified by the Scottish Minister in respect of Carbon Dioxide emissions, resource use, building flexibility, adaptability and occupant well being (acoustics falls into this category) is achieved.

A statement of the level of sustainability achieved is affixed to the dwelling or non-domestic building.

The levels of sustainability is detailed in the following formats,

Bronze or Bronze Active

Silver or Silver Active

Gold

Bronze Level – This is the baseline level of sustainability achieved where the dwelling meets the functional standards set out in Section 5 of the Scottish Building Standards.

Bronze Active Level – There is no performance improvement for Bronze Active level.

Silver Level – A dwelling at this first optional upper level should meet all the standards in Section 1-6 that apply to the building for the Bronze level and, in addition, the dwelling should comply with the silver level in each of the eight aspects. Aspect 7 is well being & security.

A. Noise separation: Design performance levels for separating walls and separating floors associated with attached dwellings should be:

Minimum airborne sound insulation: 58 dB DnTw

Maximum impact sound transmission: 54 dB LnTw

Performance levels for noise isolation for separating walls and separating floors should be verified by carrying out a sound test as indicated in the guidance of Section 5.

B. Noise reduction between rooms: Design performance level for a minimum airborne sound insulation should be 44 dB RW.

This refers to all internal partitions in all dwellings and intermediate floors within houses and maisonettes excluding storage cupboards and should be substantiated by manufacturers laboratory test certificates.

Silver Active Level – The same acoustic performance levels mentioned in Silver Level.

Silver Level – A dwelling at this first optional upper level should meet all the standards in Section 1-6 that apply to the building for the Bronze level and, in addition, the

dwelling should comply with the silver level in each of the eight aspects. Aspect 7 is well being & security.

A. Noise separation: Design performance levels for separating walls and separating floors associated with attached dwellings should be:

Minimum airborne sound insulation: 60 dB DnTw

Maximum impact sound transmission: 52 dB LnTw

Performance levels for noise isolation for separating walls and separating floors should be verified by carrying out a sound test as indicated in the guidance of Section 5.

B. Noise reduction between rooms: Design performance level for a minimum airborne sound insulation should be 45 dB RW.

This refers to all internal partitions in all dwellings and intermediate floors within houses and maisonettes excluding storage cupboards and should be substantiated by manufacturers laboratory test certificates.

**NORTHERN IRELAND**

Northern Ireland currently falls under the Part G guidelines for the resistance for the passage of sound. The latest document changes came in to force in 2012. The information detailed by Hush Acoustics is in line with the most recent document.

**TABLE 0.1A** Dwelling-houses and flats – performance standards for separating walls, separating floors, and stairs that have a separating function

	Airborne sound insulation sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum values)	Impact sound Insulation $L'_{nT,w}$ dB (Maximum values)
Purpose built dwelling - houses and flats		
Walls	45	-
Floors & stairs	45	62
Dwelling - houses and flats formed by material change of use		
Walls	43	-
Floors & stairs	43	64

**TABLE 0.1B** Rooms for residential purposes – performance standards for separating walls, separating floors, and stairs that have a separating function

	Airborne sound insulation sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum values)	Impact sound Insulation $L'_{nT,w}$ dB (Maximum values)
Purpose built dwelling - houses and flats		
Walls	43	-
Floors & stairs	45	62
Rooms for residential purposes formed by a material change of use		
Walls	43	-
Floors & stairs	43	64

**TABLE 0.2** Laboratory values for new internal walls and floors within dwelling-houses, flats and rooms for residential purposes, whether purpose built or formed by material change of use

	Airborne sound insulation $R_w$ dB (Minimum values)
Walls	40
Floors	40

A dwelling or room for residential purposes shall be designed and constructed in such a way so as to provide reasonable resistance to the passage of sound from other parts of the same building outside the dwelling or room for residential purposes of adjoin buildings.

**ACOUSTIC TESTING – NORTHERN IRELAND**

Acoustic testing is a major factor in the change of Part G in 2012. It is compulsory to test all change of use/conversion residential projects and any new build residential projects that had not been constructed by the means of Robust Details

At least 10 percent of each type of all new residential properties are tested to determine fulfillment of the regulations and pre-completion testing must always be carried out by an accredited acoustic engineer.

Hush Acoustics do offer a UKAS accredited testing service and we can arrange sound testing for you.

**ROBUST DETAILS – NORTHERN IRELAND**

Robust Details (RD) are high performance separating wall and floor constructions that are expected to be sufficiently reliable not to need the check provided by pre-completion testing (PCT). A set of design details which achieve compliance with requirement E1 have been approved by Robust Details Ltd.

Builders intending to use any of these design details must register the project with Robust Details Ltd and follow, to the letter, procedures issued by Robust Details Ltd.

Robust Details can be a minefield and something that Hush Acoustics can offer assistance on.

## HUSH ACOUSTICS

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