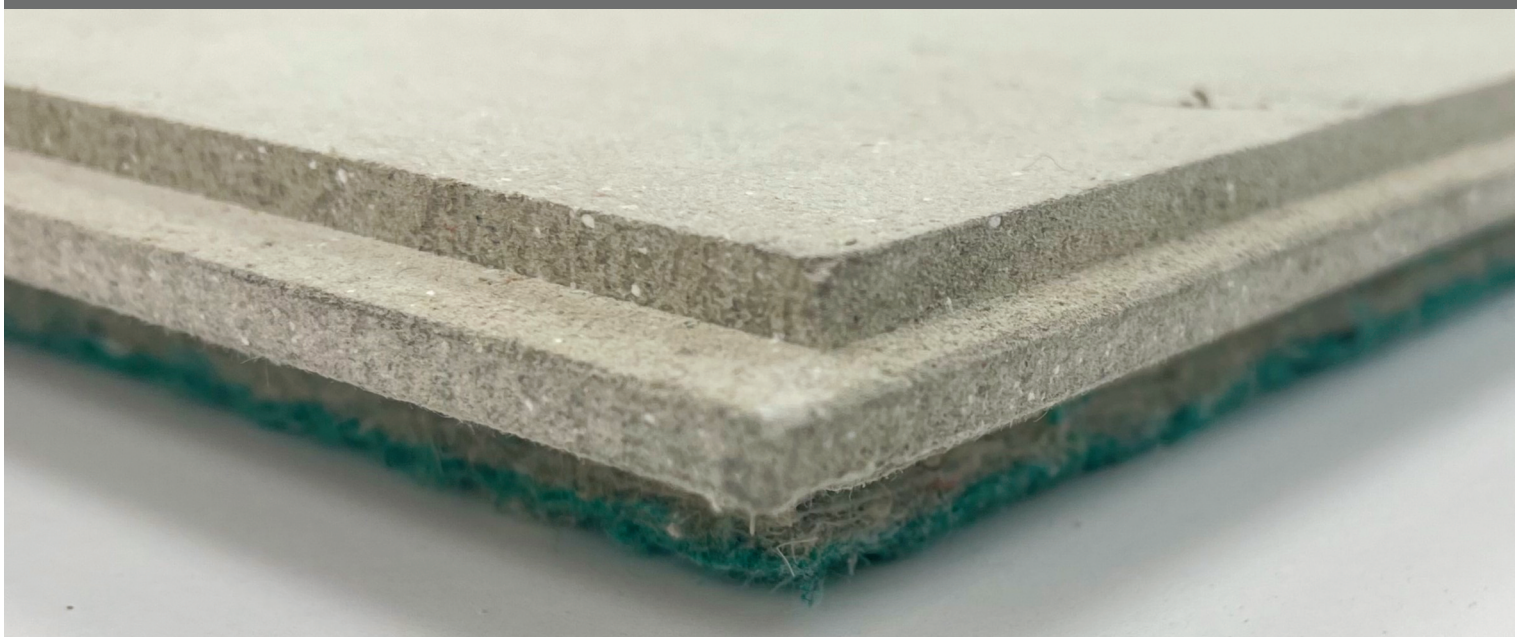
HUSH ACOUSTICS - FLOATING FLOORING

HUSH GYP-CEM PANEL 28

Dry Screed Panel Solution

HUSH ACOUSTICS
Acoustic Material Manufacturers



Hush Gyp-Cem Panel 28 is a high mass, acoustic dry screed panel acoustic flooring, that has been developed to perform at both airborne and impact noise performance in construction types that is deemed to be too lightweight. The Hush Gyp-Cem 28 has been designed to be used in New Build, Material Change of Use/Conversion and Refurbishment developments.

By increasing mass levels to a lightweight structure, the airborne acoustic performance will be increased as well as the impact performance. The dual performance increase of both airborne and impact sound reduction doesn't normally occur when a standard acoustic panel is used. This is the benefit of using the Hush Gyp-Cem 28 dry screed panel.

Hush Gyp-Cem Panel 28 comprises of an 18mm tongued and grooved Gypsum Fibre particle board and our Hush Felt 10 resilient layer. The Hush Gyp-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.

SPECIFICATION

- Overall Board Dimensions 1200 x 600 x 28mm – 0.72m2
- Weight per m2: 24.00kg
- Weight per board: 17.30kg
- 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

ACOUSTIC PERFORMANCE

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

Results based on Hush Gyp-Cem Panel 28 being laid over a floor structure, with a suitable ceiling treatment and all flanking paths removed.

SUITABLE FOR

FEATURES

- ✓ High Mass Acoustic Flooring to improve both Airborne and Impact noise issues
- ✓ Excellent Acoustic Performance
- ✓ Improves Impact and Airborne performance as a floor product
- ✓ 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 form a Robust Detail compliant solution
- ✓ Suitable for New Build, Change of Use and Refurbishment Projects

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BUILDING REGULATIONS

STATEMENT

- Approved Document E (England & Wales) incorporates a unit of measurement to determine low frequency airborne sound transmission. Due to proven intrinsic difficulties of measuring low frequency sound, in domestic sized rooms, it must be expected that there could be significant deviations in the accuracy of these measurements.
- There will be variations in measurements form site to site in all UK Building Regulations whether it be Document E (England & Wales), Section 5 (Scotland) or Part G (Northern Ireland). These variations are caused by structural differences in buildings, general site conditions and workmanship.
- All these factors can influence the repeatability of both impact and airborne acoustic test results. Therefore, any test results must be considered as an indication only and no warranty can be given or implied as to the actual acoustic performance in any particular situation.

OVERVIEW

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 UK Building Regulations requires that both these noise types are controlled. Practical guidance to meet with Building Regulation requirements is given within Approved Document E.

Sound insulation, in general terms, is the prevention of airborne and impact sound being transmitted from one part of a building to another through separating floors, ceilings or walls.

AIRBORNE SOUND

Airborne sound sources produce noise by vibrating the surrounding air, for example speech, televisions and home entertainment systems. Airborne sound insulation is concerned with reducing this sound transmission through separating floors and walls.

IMPACT SOUND

Impact sound sources produce noise by direct physical excitation of a part of a building, for example footsteps on a floor. Impact sound insulation is concerned with resisting this impact sound upon separating floors.

FLANKING TRANSMISSION

Flanking transmission occurs when sound is transmitted from one space to another indirectly, through adjoining parts of the structure, e.g. 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.

APPROVED DOCUMENT E

UK Building Regulations approved Document E 2003 (with subsequent amendments in 2004, 2010, 2013, 2015) incorporates a unit of measurement to determine low frequency airborne sound transmission.

Due to proven intrinsic difficulties of measuring low frequency sound, in domestic sized rooms, it must be expected that there could be significant deviations in the accuracy of these measurements. Furthermore, there will be variations from site to site due to structural differences in buildings, general site conditions and workmanship.

All these factors can influence the repeatability of both impact and airborne acoustic test results. Therefore, any test results must be considered as an indication only and no warranty can be given or implied as to the actual acoustic performance in any particular situation.

ENGLAND & WALES - NEW APPROVED DOCUMENT E

Building Regulations New Approved Document E came into force on 1st July 2003 (with subsequent amendments in 2004, 2010, 2013, 2015) with the introduction of pre-completion testing (PCT) for sound insulation as a means of demonstrating compliance, and as from 1st July 2004 the use of Robust Details (RD) in new build has been accepted as an alternative to PCT.

Requirements E1, E2 and E3 of Document E apply to the sound insulation of any type of conversion or new build used as a dwelling including; houses, apartments, hostel rooms, hotels, boarding houses, halls of residence and residential homes. Requirement E4 applies to acoustic conditions in schools.

Performance standards are given for each requirement, as follows:

TABLE 0.1A

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

	Airborne 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

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BUILDING REGULATIONS cont.

TABLE 0.1B

Rooms for residential purposes – performance standards for separating walls, separating floors, and stairs that have a separating function.

	Airborne 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
Dwelling - houses and flats formed by 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 & Stairs	40

For further information on Approved Document E visit www.communities.gov.uk or www.planningportal.gov.uk

PCT & ROBUST DETAILS

Pre-completion testing applies to all multi-occupancy, multi-dwelling, or connected-residential material change of of use developments. It also applies to all multi-occupancy, multi-dwelling, or connected-residential new build projects not built by 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.

Contact with suitable sound testing companies can be arranged through our technical department.

ROBUST DETAILS

Robust Details are high performance separating wall and floor constructions that are expected to be sufficiently reliable not to need the check provided by 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.

For further information on Robust Details visit www.robustdetails.com or contact the Hush Technical division on info@hushacoustics.co.uk.

SCOTLAND & NORTHERN IRELAND SCOTTISH BUILDING REGULATIONS SECTION 5

Deals with the reduction of sound through separating building elements between domestic buildings.

	New build and conversions other than traditional buildings	Conversion of traditional buildings*
Minimum airborne sound transmission (DnT,w) (Floors & walls)	56dB	53dB
Maximum impact sound transmission (L'nT,w) (Floors only)	56dB	58dB

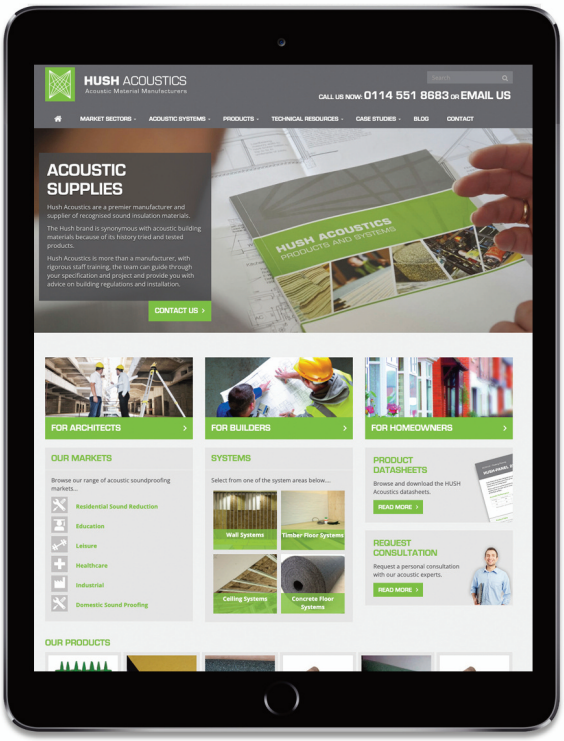
NORTHERN IRELAND BUILDING REGULATIONS PART G

Northern Ireland Building Regulations Part G, Sound Insulation in Dwellings.

	Airborne sound insulation $D_{nT,w}$ dB (Minimum values)	Impact sound insulation $L'_{nT,w}$ dB (Maximum values)
New build		
Floors	52	61
Conversion		
Floors	48	64

For further information please visit www.buildingcontrol-ni.com

Should you require further information please visit www.hushacoustics.co.uk or call 0114 750 05727.



HUSH PRODUCT STOCKISTS

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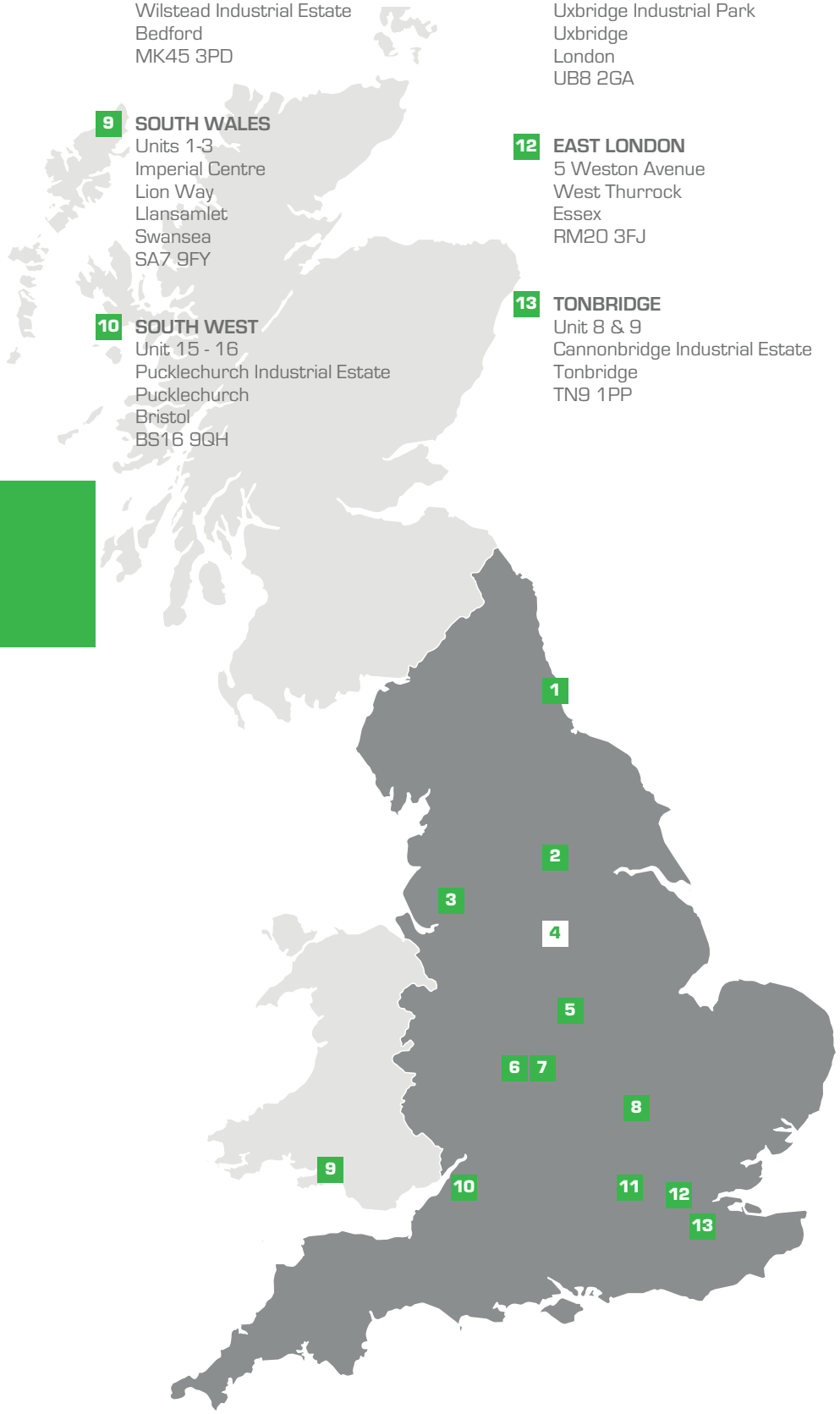

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