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METAL SYSTEMS SECTOR APPLICATION GUIDE



SPEEDLINE PRODUCT RANGE

Speedline is a high, quality, high performance brand of drywall products and accessories, available from SIG Insulations companies. Central to the range is a comprehensive choice of metal profiles and components which form the basis of drylining, partitioning and ceiling systems.

QUALITY AND STANDARDS

Thanks to extensive research and development, combined with advanced manufacturing techniques, all Speedline products conform to the latest British and European standards. These systems have also been fully and independently tested with proprietary gypsum products, providing reassurance that Speedline products will meet the most stringent standards of rigidity, fire resistance and sound, thermal and hygrothermal insulation.

NATIONWIDE SERVICE

Speedline products are available from SIG Insulations companies throughout the UK. Branches carry extensive stocks of all products, plus a comprehensive choice of Speedline accessories, such as fixings, adhesives, joint compounds, tapes and mastic. Experienced staff offer a fast and efficient service whilst product specialists are on hand to assist with technical issues and complex specifications.





This sector application guide is designed to provide product information relevant to assist with the specification of drywall partitioning systems for Residential, Educational and Healthcare projects.

Each sector has a dedicated overview. Residential solutions are shown in the dedicated section, whilst specific solutions for Education and Healthcare are provided in the red Solutions section.



This document includes parts of the relevant Building Regulations and performance standards for each of these sectors. This is provided for information, but it is recommended that users of the guide satisfy themselves to their relevance and seek professional guidance as appropriate.

This document must be read in conjunction with the Speedline Metal Systems Product Application Guide. This can be downloaded from the Speedline website – www.speedlinedrywall.co.uk or a request can be made online to receive a printed copy.



The Speedline Metal Systems Product Application Guide gives details on how to construct the partitions, plus details on shaft encasement, wall linings and ceilings plus solutions to greater heights.

RESIDENTIAL	2
Internal Walls	3
Party Walls	
Robust Detail EWS-1	4
PCT Twin Frame Options	5
Space Saver Walls	6

EDUCATION	
BB93 Requirements	7-9

HEALTHCARE	
HTM56 Requirements	10
HTM2045 Requirements	11

SOLUTIONS	
40-44RwdB	12
45-49RwdB	13
50-55RwdB	14
56-59RwdB	15
60 & Above RwdB	16-17

STANDARDS	
British Standards	18
Sustainability and Testing	19

RESIDENTIAL SOLUTIONS

BACKGROUND TO APPROVED DOCUMENT E

APPLICABLE TO APARTMENTS, HOSTELS, STUDENT ACCOMMODATION AND HOTELS



This information is not exhaustive, it is provided only as a guide and should be used with the Approved Document E.

The New Approved Document E, (2003 Edition) was implemented on 1st July 2003. Its primary objective is to raise the standard of sound insulation in all dwellings as well as between rooms in hostels, hotels and residential homes.

This is the case in all new builds and refurbishments and conversions.

The solutions in the residential sector of this document are aimed at satisfying:

E1 - Protection against sound from other parts of the building and adjoining buildings.

E2 - Protection against sound within a dwelling/ house etc.

Dwelling-houses and flats - performance standards for separating walls, separating floors and stairs that have a separating function.		Airborne sound insulation Dntw + Ctr dB (Minimum values)	Impact sound insulation Lntw dB (Maximum values)
Purpose built dwelling - houses and flats	Walls	45	-
	Floors and Stairs	45	62
Dwelling houses and flats formed by material change of use	Walls	43	-
	Floors and Stairs	43	64

An Internal Wall or floor between bathroom/wc and a habitable room also between bedrooms require Rw40dB.

Solutions on page 3.

Pre-Completion Testing

- Buildings are to be tested prior to completion in order to confirm they meet or exceed Part E standards.
- The Regulations require that one in ten of each construction type requires testing.

Full details of pre-completion testing are explained in Section 1 of the Approved Document E.

Solutions on pages 5 and 6.

Robust Details

These are a set of standards developed by the House Builders Federation. They will be permitted to demonstrate compliance with Part E of the Building Regulations, as an alternative to pre-completion testing. However PCT testing is still needed unless registered with Robust Standard Details Ltd.

Solutions on page 4.

Internal walls are not subject to PCT but must be built to comply with the standards laid out in Approved Document E i.e. to achieve Rw40dB (Laboratory test result)

The constructions shown have the potential to meet Approved Document E requirements if built correctly and in accordance with Relevant Application Guide.

An internal wall between bathroom/wc and a habitable room also between bedrooms requires Rw40dB

New AS43 ACOUSTIC STUD AT 600mm CENTRES										
	Part Grade	Max Height	Nominal Weight	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Reference
	BS5234	m	Kg/m ³	mm	mins			12.5mm	15mm	
	MD	2.7	28	75	30	40				A43001
	MD	2.7	28	75	30	40			SR *1	A43002
	MD	2.7	27	75	30		42		SR	A43003

SR*1 Ref A43001 – SRL Test Certificate No 5335 Gyproc Sound Bloc
 SR*2 Ref A43002 – SRL Report Number C/07/5L/20182/R03 Knauf Soundshield

BENEFIT

- Slim wall with no insulation needs to achieve Rw40dB requirements

70mm C STUD SPACED AT 600mm CENTRES										
	Part Grade	Max Height	Nominal Weight	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Reference
	BS5234	m	Kg/m ³	mm	mins			12.5mm	15mm	
	MD	3.6	22	95	30	40		SR		7002
	HD	3.8	26	100	30	42			SR	7005
	MD	3.6	23	95	30		47	SR		7008
	HD	3.8	27	100	30		48		SR	7011

50mm C STUD SPACED AT 600mm CENTRES										
	Part Grade	Max Height	Nominal Weight	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Reference
	BS5234	m	Kg/m ³	mm	mins			12.5mm	15mm	
	MD	2.5	22	75	30		42		SR	5030
	MD	2.8	27	80	30		45**		SR	5022

All Studs spaced at 600mm centres. All studs are single unless stated as BOXED or TWIN FRAME construction
 Cavity infills are 25mm glass mineral wool or 30mm rock mineral wool unless otherwise stated.
 **Denotes – 50mm glass mineral wool quilt.

Plasterboard codes are:-

FR Fire Resistant plasterboard **SR** Sound Resistant Plasterboard **IR** Impact Resistant Plasterboard
PD Predecorated Sound/Fire Resistant Plasterboard **F** Fermacell Gypsum Board

With studs spaced at 400mm centres, maximum height can be increased by 0.3m.
 Ceramic Tiling If Ceramic tiles are being fixed to the finished wall, stud centres must be reduced to 400mm to prevent cracking of tiles.

PARTITIONING SYSTEMS

PARTY WALL – ROBUST DETAILS EWS-1

All sketches show one layer of mineral wool batts placed between the studs. It is also acceptable to place a layer of mineral wool batts or quilt on both sides of the wall.

This system complies with Robust Details Ltd for Part E of the Building Regulations. Pre-Completion Testing is still required for Robust Detail solutions unless the site is registered with Robust Details Ltd. All systems have a maximum 3000m height.

WALL LINING

Most Common Builds:

- two layers 12.5mm Sound Resistant plasterboard, subject to board having combined mass of 22 kg/m², or
- 12.5mm Sound Resistant plasterboard outer leaf and 19mm plank inner leaf (mounted horizontally). Subject to combined mass of 22 kg/m².
- two or more layers of gypsum-based board minimum (total nominal mass per unit area 22 kg/m²) both sides.
- all joints staggered.

WALL WIDTH

200mm (min) between inner faces of wall linings.

BENEFITS

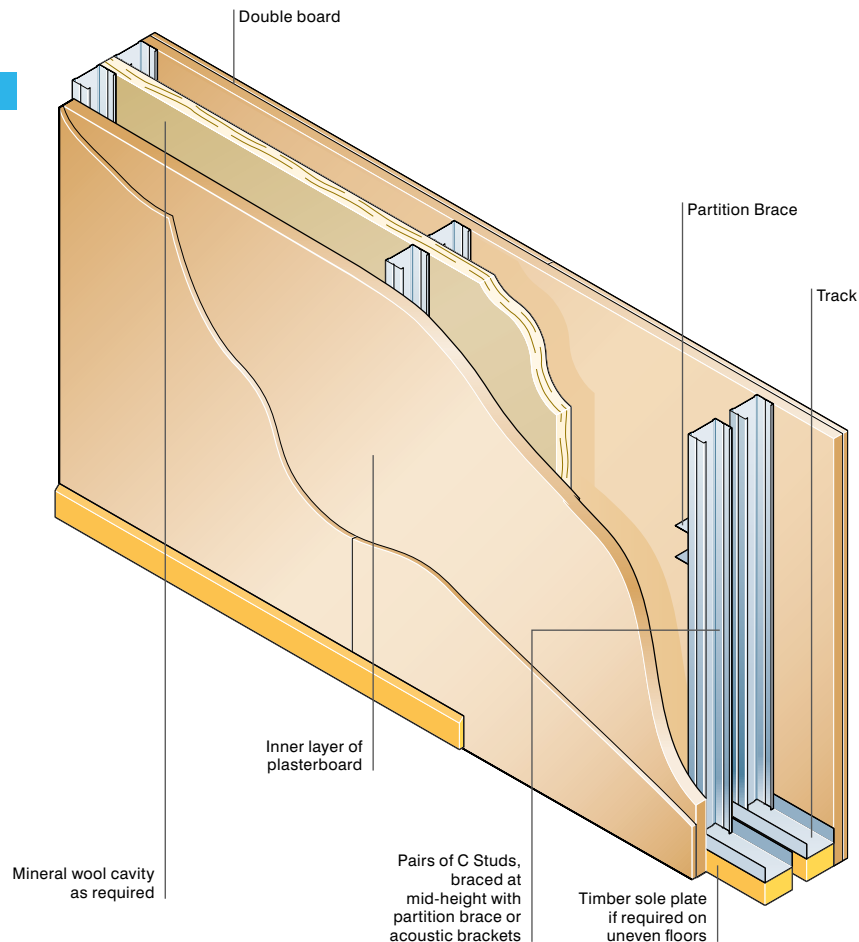
- 60 minutes fire resistance
- 45 Dntw + Ctr dB airborne sound onsite

ABSORBENT MATERIAL

- one layer 50mm (min) unfaced mineral wool batts (density 33-60 kg/m³), or
- two layers 25mm (min) unfaced mineral wool batts (density 33-60 kg/m³), or
- two layers 25mm (min) unfaced mineral wool quilt (density min 10 kg/m³).
- refer to robust details specification for checklists and construction details.

DO

- Keep wall linings at least 200mm apart
- Ensure the batts cover whole wall area and are fitted together tightly
- Make sure batts are not tightly compressed by the twin frames
- Ensure that all cavity stops/closers are flexible or are fixed to one frame only
- Make sure there is no connection between the two leaves except where ties are necessary for structural reasons
- Stagger joints in wall linings to avoid air paths
- Seal all joints in outer layer with tape or caulk with sealant



TWIN FRAME SOLUTIONS

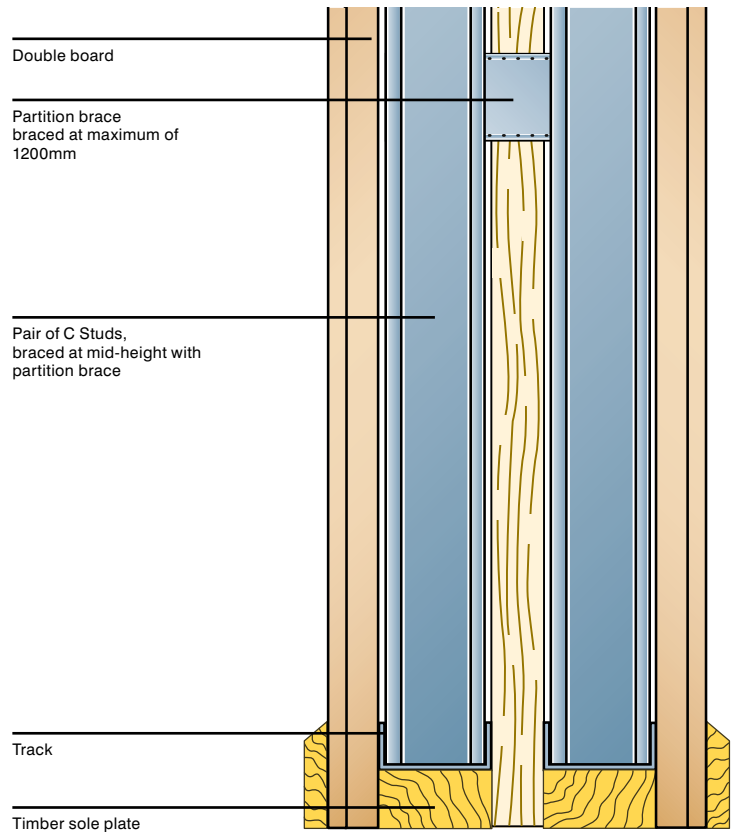
PARTY WALL PRE-COMPLETION TESTING – SEPARATING WALLS

Where pre Completion Testing is to be used, Part E stipulates that the Builder needs to demonstrate that the prescribed Acoustic Rating has been achieved. To satisfy 10% of all new dwellings should be pre completion tested on site.

The testing is applicable to separating walls and floors. The testing will need to be carried out by an accredited third party.

Twin Frame walls have the potential to satisfy the relevant criteria.

Examples of such are highlighted below.



PARTY WALLS TWIN FRAME SOLUTIONS SOLUTIONS TO ACHIEVE 45 Dntw

SEVERE						
	Part Grade BS5234	Max Height m	Nominal Width mm	Fire Resistance mins	Sound Insulation with Infill RwdB C,Ctr	Test Ref
	SD	6.2	210	90	60 (-3:-9)	PW001
	SD	6.2	250	90	60 (-2:-8)	PW002
	SD	6.2	250	90	63 (-3:-9)	PW005
	SD	6.2	200	90	62 (-4:-11)	PW003
	SD	6.2	200	90	64 (-2:-9)	PW004

PD = Pre decorated sound/fire resistant plasterboard. Note for greater heights please refer to the Speedline Metal Systems Product Application Guide where solutions up to 12m can be found.

All Studs spaced at 600mm centres. **Plasterboard codes are: FR Fire Resistant plasterboard SR Sound Resistant Plasterboard IR Impact Resistant Plasterboard PD Predecorated Sound/Fire Resistant Plasterboard F Fermacell Gypsum Board**

With studs spaced at 400mm centres, maximum height can be increased by 0.6m for double boarded applications.

Ceramic Tiling – If Ceramic tiles are being fixed to the finished wall, stud centres must be reduced to 400mm to prevent cracking of tiles.

PARTITIONS USING RESILIENT BAR

PARTY WALL – REFURBISHMENT (43 Dntw)

RESILIENT BAR

Where Speedline Resilient Bar is to be fixed to timber or metal studs, the following centres apply. For single layer boarding, fix Resilient Bar at 400mm centres. For double layer boarding, fix Resilient Bar at 600mm centres. Fix the initial Resilient Bar 50mm down from the ceiling and the last bar 50mm from the floor. Screw fix the Resilient Bars to the Studs using Wafer head Self-Tapping Screws. Screw fix the wallboard to the Resilient Bar only, ensuring the screw does not touch the metal substrate. Bars are joined by butting together on the stud.

- Reduced overall construction nominal width
- Pre-completion testing needed
- Part E requirements:
New Build 45dB Dntw + Ctr Refurbishments
43dB Dntw + Ctr

All sound insulation data is based on laboratory evaluation of the building element in isolation and cannot reproduce your installed local conditions. The actual tests carried out are used to offer an order of magnitude comparison for the performance of the various systems.

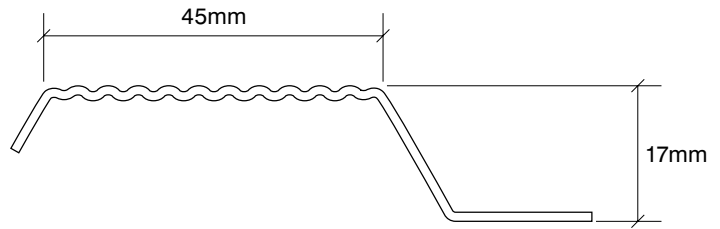
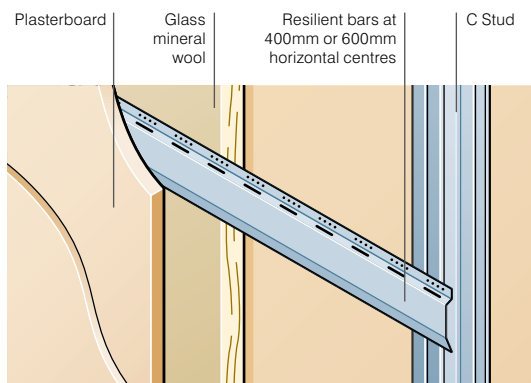
Sound insulation on site is a function of the partition chosen and the associated structures in which it is installed.

Speedline cannot take any responsibility for overall design and it is advisable that specialist advice is sought at an early stage of design.

All test data and system specifications are for systems constructed with materials and components as shown.

The inclusion of other components without prior approval or constructed on site contrary to these documents will invalidate test certification and system performance.

The use of resilient bar walls has a greater emphasis on standard of workmanship. However, if installed correctly it has the potential to satisfy requirements for material change of use applications.



SPECIFICATION

Product Code	Product Description	Stock Lengths Metre	Weight per Length Kgs
RB565	Resilient Bar x 0.5mm	3.000	1.05



PARTITIONS USING RESILIENT BAR

	70mm C Stud spaced at 600mm centres with Resilient Bar fixed perpendicular to the studs one side only at 600mm centres. Two layers of 15mm Sound Resistant plasterboard. 50mm glass mineral wool.	70mm C Stud spaced at 600mm centres with Resilient Bar fixed perpendicular to the studs one side only at 600mm centres. Two layers of 15mm Fire Resistant plasterboard. 50mm glass mineral wool.	70mm C Stud spaced at 600mm centres with Resilient Bar fixed perpendicular to the studs one side only at 600mm centres. Inner layer of 19mm plank, outer layer of 12.5mm Standard plasterboard. 50mm glass mineral wool.	70mm C Stud spaced at 600mm centres with Resilient Bar fixed perpendicular to the studs one side only at 600mm centres. Two layers of 12.5mm Sound Resistant plasterboard. 50mm glass mineral wool.	70mm C Stud spaced at 600mm centres with Resilient Bar fixed perpendicular to the studs on both sides at 600mm centres. Two layers of 15mm Sound Resistant plasterboard. 50mm glass mineral wool.	70mm C Stud with Resilient Bar one side only clad with inner layer of 15mm Sound Resistant Plasterboard and outer layer of 12.5mm Impact Resistant Plasterboard infilled with 50mm Glass Mineral Wool.	70mm C Stud with Resilient Bar both sides only clad with inner layer of 15mm Sound Resistant Plasterboard and outer layer of 12.5mm Impact Resistant Plasterboard infilled with 50mm Glass Mineral Wool.
Stud Width mm	70	70	70	70	70	70	70
Partition Grade BS5234	SD	SD	SD	SD	SD	SD	SD
Max Height m	4.2	4.2	4.2	4.0	4.2	4.1	4.1
Nom Weight kg/m ²	53	51	49	51	54	52	53
Nom Width mm	147	147	150	142	164	142	159
Fire Resistance min	90	120	60	60	90	90	90
Sound Insulation R _w dB (c:ctr)	61 (-3;-8)	62 (-3;-9)	63 (-4;-10)	59 (-2;-7)	63 (-2;-7)	58 (-3;-10)	63 (-2;-8)
Test Reference	RB001	RB002	RB003	RB004	RB005 NEW	RB006 NEW	RB007 NEW



Section 1 of the Building Bulletin 93 (BB93) supersedes Section A of Building Bulletin 87(2) as the constructional standard for acoustics for new school buildings.

In addition, Part E of the Building Regulations includes schools within its scope. All newly built or refurbished schools are required to comply with BB93.

DESIGN CRITERIA

All spaces should meet the performance standards defined in Tables 1.1, 1.2, 1.3, 1.4 and 1.5 for indoor ambient noise level, airborne and impact sound insulation and reverberation time.

Open-plan spaces should additionally meet the performance standard for speech intelligibility as detailed in table 1.6 of BB93

ACOUSTICS

The Education (School Premises) Regulations 1999, S1 1999 No. 2 which applies to both new and existing school buildings states "Each room or other space in a school building shall have the acoustic conditions and the insulation against disturbance by noise appropriate to its normal use". Compliance with the acoustic performance standards specified in Section 1 will satisfy both regulations for new schools.

BB93 gives recommended external noise levels for classrooms which should be used by the design team when making planning decisions.

Table 1.1 Performance standards for indoor ambient noise levels – upper limits for the indoor ambient noise level, LAeq,30min

Type of room	Room classification for the purpose of airborne sound insulation in Table 1.2		Upper limit for the indoor ambient noise level LAeq,30min (dB)
	Activity noise (Source room)	Noise tolerance (Receiving room)	
Nursery school playrooms	High	Low	35'
Nursery school quiet rooms	Low	Low	35'
Primary school: classrooms, class bases, general teaching areas, small group rooms	Average	Low	35'
Secondary school: classrooms, general teaching areas, seminar rooms, tutorial rooms, language laboratories	Average	Low	35'
Open-plan ²			
Teaching areas	Average	Medium	40'
Resource areas	Average	Medium	40'
Music			
Music classroom	Very high	Low	35'
Small practice/group room	Very high	Low	35'
Ensemble room	Very high	Very low	30'
Performance/recital room	Very high	Very low	30'
Recording studio ³	Very high	Very low	30'
Control room for recording	High	Low	35'
Lecture rooms			
Small (fewer than 50 people)	Average	Low	35'
Large (more than 50 people)	Average	Very low	30'
Classrooms designed specifically for use by hearing impaired students (including speech therapy rooms)	Average	Very low	30'
Study room (individual study, withdrawal, remedial work, teacher preparation)	Low	Low	35'
Libraries			
Quiet study areas	Low	Low	35'
Resource areas	Average	Medium	40
Science laboratories	Average	Medium	40
Drama studios	High	Very low	30'
Design and technology			
* Resistant materials, CAD/CAM areas	High	High	40
* Electronics/control, textiles, food, graphics, design/resource areas	Average	Medium	40
Art rooms	Average	Medium	40
Assembly halls ⁴ , multi-purpose halls ⁴ (drama, PE, audio/visual presentations, assembly, occasional music)	High	Low	35'
Audio-visual, video conference rooms	Average	Low	35'
Atria, circulation spaces used by students	Average	Medium	45
Indoor sports hall	High	Medium	40
Dance studio	High	Medium	40
Gymnasium	High	Medium	40
Swimming pool	High	High	50
Interviewing/counselling rooms, medical rooms	Low	Low	35'
Dining rooms	High	High	45
Ancillary spaces: Kitchens*	High	High	50
Offices*, staff rooms*	Average	Medium	40
Corridors*, stairwells*	Average – High	High	45
Coats and changing areas*	High	High	45
Toilets*	Average	High	50

Table 1.2 Performance standards for airborne sound insulation between spaces - minimum weighted BB93 standardized level difference, DnT(Tmf,ma),w

Minimum DnT(Tmf,max),w (dB)	Activity noise in source room (see Table 1.1)				
	Low	Average	High	Very high	
Noise Tolerance in receiving room (see table 1.1)	High	30	35	45	55
	Medium	30	35	45	55
	Low	30	35	45	55
	Very low	30	35	45	55

Table 1.3 Performance standards for airborne sound insulation between circulation spaces and other spaces used by students – minimum sound reduction level Rw and minimum Dn,e,w-10Lgn (laboratory measurements*)

Type of space used by students	Minimum Rw (dB)		Minimum Dn,e,w-10Lgn (dB)
	Wall including Any Glazing	Door set	
All spaces except music rooms	40	30	39
Music rooms	45	35	45

REFERENCES

1 Section 1 of Building Bulletin 93

1.1 Performance standards

The overall objective of the performance standards in Section 1.1 is to provide acoustic conditions in schools that (a) facilitate clear communication of speech between teacher and student, and between students, and (b) do not interfere with study activities.

1 Research indicates that teaching can be disrupted by individual noisy events such as aircraft flyovers, even where the noise level is below the limits in Table 1.1 having limits of 35dB or less the noise level should not regularly exceed 55 dB LA1,30min.

2 Acoustic considerations of open-plan areas are complex and are discussed in Section 1.1.7 and section 4.

3 Studios require specialised acoustic environments and the noise limits for these will vary with the size, intended use and type of room. In some cases noise limits below 30 dB LAeq may be required, and separate limits for different types of noise may be appropriate; specialist advice should be sought

4 Halls are often multi-functional spaces (especially in primary schools) used for activities such as dining, PE, drama, music, assembly and performing plays and concerts. In such multi-functional spaces the designer should design to the lowest indoor ambient noise level for which the space is likely to be used. For large halls used for formal drama and music performance lower noise levels than those used in Table 1.1 are preferable, and levels of 25 dB LAeq,30min may be appropriate. In these cases specialist advice should be sought.

* Part E of Schedule 1 to the Building Regulations 2000 (as amended by S1 2002/2871) applies to teaching and learning spaces and is not intended to cover administration and ancillary spaces (see under Scope in the introduction). For these areas the performance standards are for guidance only.

Notes on Table 1.2

1 Each value in the table is the minimum required to comply with Building Regulations. A value of 55 dB DnT(Tmf,max),w between two music practice rooms will not mean that the music will be inaudible between the rooms: in many cases, particularly if brass or percussion instruments are played, a higher value is desirable.

2 Where values greater than 55 dB DnT(Tmf,max),w are required it is advisable to separate the rooms using acoustically less sensitive areas such as corridors and storerooms. Where this is not possible, high performance constructions are likely to be required and specialist advice should be sought.

3 It is recommended that music rooms should not be placed adjacent to design and technology spaces or art rooms.

4 These values of DnT(Tmf,max),w include the effect of glazing, doors and other weaknesses in the partition. In general, normal (non-acoustic) doors provide much less sound insulation than the surrounding walls and reduce the overall DnT(Tmf,max),w of the wall considerably, particularly for values above 35dB DnT(Tmf,max),w. Therefore doors should not generally be installed in partitions between rooms requiring values above 35dB DnT(Tmf,max),w unless acoustic doors, door lobbies, or double doors with an airspace are used. This is not normally a problem as rooms are usually accessed via corridors or circulation spaces so that there are at least two doors between noise-sensitive rooms. (See extra guidance in BB93.)

Notes on Table 1.3

1 The Rw ratings are for the door set alone. Manufacturers sometimes provide door set sound insulation data as a combined rating for the wall and door set where Rw refers to the performance of an -10m² high-performance wall containing the door set. This is not appropriate as it gives higher figures than the Rw of the door set itself. However, with knowledge of the wall and door set areas the Rw of the door set can be calculated from these test results.

2 Special design advice is recommended.

3 Wherever possible, ventilators should not be installed between music rooms and circulation spaces.

* A laboratory measurement because of the difficulty in accurately measuring the airborne sound insulation between rooms and corridors, or rooms and stairwells in the field. Therefore it is crucial that the airborne sound insulation of the wall and/or door set is not compromised by flanking sound transmission, e.g. sound transmission across the junction between the ceiling and the corridor wall (See extra guidance in BB93).



Table 1.4 Performance standards for impact sound insulation of floors – maximum weighted BB93 standardized impact sound pressure level LnT(Tmf,max),w

Type of room (receiving room)	Maximum weighted BB93 standardized impact sound pressure level LnT(Tmf,max),w (dB)
Nursery school playrooms	65
Nursery school quiet rooms	60
Primary school: classrooms, class bases, general teaching areas, small group rooms	60
Secondary school: classrooms, general teaching areas, seminar rooms, tutorial rooms, language laboratories	60
Open-plan Teaching areas	60
Resource areas	60
Music	
Music classroom	55
Small practice/group room	55
Ensemble room	55
Performance/recital room	55
Recording studio	55
Control room for recording	55
Lecture rooms	
Small (fewer than 50 people)	60
Large (more than 50 people)	55
Classrooms designed specifically for use by hearing impaired students (including speech therapy rooms)	55
Study room (individual study, withdrawal, remedial work, teacher preparation)	60
Libraries	60
Science laboratories	65
Drama studios	55
Design and technology	
* Resistant materials, CAD/CAM areas	65
* Electronics/control, textiles, food, graphics, design/resource areas	60
Art rooms	60
Assembly halls, multi-purpose halls, (drama, PE, audio/visual presentations, assembly, occasional music)	60
Audio-visual, video conference rooms	60
Atria, circulation spaces used by students	65
Indoor sports hall	65
Dance studio	60
Gymnasium	65
Swimming pool	65
Interviewing/counselling rooms, medical rooms	60
Dining rooms	65
Ancillary spaces: Kitchens*	65
Offices*, staff rooms*	65
Corridors*, stairwells*	65
Coats and changing areas*	65
Toilets*	65

Table 1.5 Performance standards for reverberation in teaching and study spaces – mid-frequency reverberation time, Tmf in finished but unoccupied and unfurnished rooms

Type of room	Tmf *(seconds)
Nursery school playrooms	<0.6
Nursery school quiet rooms	<0.6
Primary school: classrooms, class bases, general teaching areas, small group rooms	<0.6
Secondary school: classrooms, general teaching areas, seminar rooms, tutorial rooms, language laboratories	<0.8
Open-plan Teaching areas	<0.8
Resource areas	<1.0
Music	
Music classroom	<1.0
Small practice/group room	<0.8
Ensemble room	0.6 – 1.2
Performance/recital room3	1.0 – 1.5
Recording studio	0.6 – 1.2
Control room for recording	<0.5
Lecture rooms3	
Small (fewer than 50 people)	<0.8
Large (more than 50 people)	<1.0
Classrooms designed specifically for use by hearing impaired students (including speech therapy rooms)	<0.4
Study room (individual study, withdrawal, remedial work, teacher preparation)	<0.8
Libraries	<1.0
Science laboratories	<0.8
Drama studios	<1.0
Design and technology	
* Resistant materials, CAD/CAM areas	<0.8
* Electronics/control, textiles, food, graphics, design/resource areas	<0.8
Art rooms	<0.8
Assembly halls, multi-purpose halls, (drama, PE, audio/visual presentations, assembly, occasional music)2,3	0.8 – 1.2
Audio-visual, video conference rooms	<0.8
Atria, circulation spaces used by students	<1.5
Indoor sports hall	<1.5
Dance studio	<1.2
Gymnasium	<1.5
Swimming pool	<2.0
Interviewing/counselling rooms, medical rooms	<0.8
Dining rooms	<1.0
Ancillary spaces: Kitchens*	<1.5
Offices*, staff rooms*	<1.0
Corridors*, stairwells*	See Section 1.1.6
Coats and changing areas*	<1.5
Toilets*	<1.5

* Part E of Schedule 1 to the Building Regulations 2000 (as amended by S1 2002/2871) applies to teaching and learning spaces and is not intended to cover administration and ancillary spaces (see under Scope in the introduction). For these areas the performance standards are for guidance only.

HOSPITAL SOLUTIONS

BACKGROUND TO HTM56 REQUIREMENTS



ACOUSTIC PERFORMANCE

Requirements for acoustic performance between areas in hospitals are given in HTM56, and general guidance on acoustic principles for Health Authority buildings is also presented in HTM2045. Table 1 gives the RwdB figures for separating elements in hospital buildings.

Table 1 Performance requirement for airborne sound insulation between rooms RwdB

	Consulting rooms	Examination rooms	Treatment rooms	Speech Therapy rooms	Day rooms	Offices	Seminar rooms	Single-bed wards	Multi-bed wards	Nurseries	Toilets and bathrooms	Utility rooms	Ward pantries	Plant motor rooms
Consulting room	43													
Examination rooms	43	43												
Treatment rooms	*	53	43											
Speech Therapy rooms	48	48	*	48										
Offices	43	43	53	48	48									
Seminar rooms	48	43	48	53	43	38								
Single-bed wards	43	43	*	48	43	48	43							
Multi-bed wards	53	53	48	*	48	43	53	43						
Day rooms	53	53	43	*	48	43	53	43	48					
Nurseries	*	*	43	*	53	48	*	48	43	43				
Toilets and Bathrooms	48	48	48	53	43	43	48	48	48	48	43			
Utility rooms	*	*	43	*	53	48	*	48	43	43	48	43		
Ward Pantries	48	48	48	53	43	38	48	43	43	48	43	48	38	
Plant motor rooms	*	*	*	*	*	*	*	*	*	*	*	*	*	*

*Special construction may be necessary. Please consult Building Control for details

HOSPITAL SOLUTIONS

BACKGROUND TO HTM2045 REQUIREMENTS

ACOUSTIC CONSIDERATIONS

As well as meeting airborne sound reduction requirements the design team should also consider the potential for eliminating or minimising flanking sound transmission. Reverberation will also affect the acoustic quality of given areas. Reverberation can be controlled by careful selection of internal finishes. Tables 2, 3 and 4 highlight considerations that are followed under HTM2045.

It is recommended that considerations in HTM2045 are followed. Please consult a qualified acoustic consultant for advice.

TABLE 2: NOISE RATING (NR) LIMITS

Noise rating (NR) limits for mechanical services and intrusive noises

Location	NR level for Mechanical Services	NR level for Intrusive Noise
Operating theatre single bed ward	30	35
Private office, meeting and consulting room	30	35
Lecture theatre	30	35
Multi-bed ward, waiting room	30	40
Staff room, recreation room, cafeteria	35	45
General office	35	40
Corridor, laboratory	40	50
Washroom, toilet, kitchen	45	50

TABLE 3: VOICE EFFORT CORRECTION FACTORS

Voice effort correction factors under HTM 2045

Voice Effort	Voice effort correction factor
Raised	5
Shout	10
Scream	20

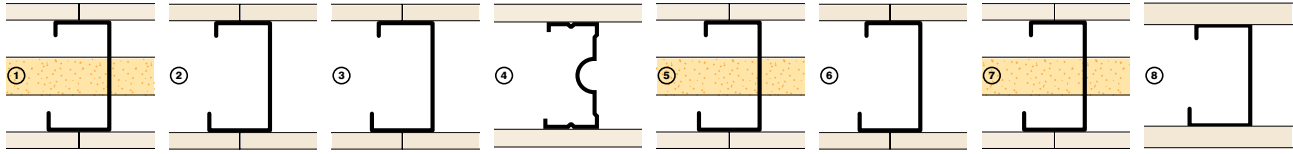
TABLE 4: RECOMMENDED PRIVACY FACTORS ASSUMING NORMAL SPEECH EFFORT

Location	Recommended privacy factor
Maternity, nursery, accident & emergency	80*
Operating theatre, single-bed ward, Multi-bed ward, private office, meeting and consultation rooms, lecture theatre	80
Laboratory, staff room, general office	75
Waiting room, corridor, wash room, toilet, Kitchen, recreation room, cafeteria	70



RwdB 40-44 SOLUTIONS

SOLUTIONS TO MEET RwdB 40-44



① One layer of 15mm FR board on SPS 70mm Stud 0.5mm gauge at 600mm centres with 25mm APR
 ② One layer of 12.5mm SR board on SPS 70mm Stud 0.5mm gauge at 600mm centres
 ③ One layer of 15mm SR board on SPS 70mm Stud 0.5mm gauge at 600mm centres
 ④ AS 70 Acoustic Stud at 600mm centres. See chart for board configuration
 ⑤ One layer of 15mm IR board on PSHD 70 Stud at 0.7mm gauge at 600mm centres with 25mm APR
 ⑥ One layer of 15mm PD board on SPS 70mm Stud 0.5mm gauge at 600mm centres
 ⑦ One layer of 15mm board of PD board on SPS 70mm Stud 0.5mm gauge at 600mm centres 25mm APR
 ⑧ One layer of 12.5mm Fermacell on 75mm Stud 0.6mm gauge at 600mm centres

HEAVY												
	Stud Size	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Double Layer		Reference
		BS5234	m	mm	mins			12.5mm	15mm	12.5mm	15mm	
①	SPS70	HD	3.8	100	60		43		FR			7025
②	SPS70	MD	3.6	95	30	40		SR				7002
③	SPS70	HD	3.8	100	30	42			SR			7005
④	AS70	HD	3.6	95	30	40		IR				A7008
	AS70	HD	3.8	100	60	41			FR			A7001
	AS70	MD	3.6	95	30	42		SR				A7002
SEVERE												
	Stud Size	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Double Layer		Reference
		BS5234	m	mm	mins			12.5mm	15mm	12.5mm	15mm	
④	AS70	SD	3.8	100	60	41			PD			A7009
⑤	PSHD70	SD	4.2	100	30		43	IR				7026
⑥	PS70	SD	3.8	100	60	40			PD			7027
⑦	SPS70	SD	3.8	100	60		44		PD			7032
FERMACELL												
	Stud Size	Insulation Material	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Double Layer		Reference
			m	mm	mins			10mm	12.5mm	10mm	12.5mm	
⑧	75mm stud 0.6 gauge	n/a	4.15	100	30	43			F			1S15

PD = Pre decorated sound/fire resistant plasterboard. Note for greater heights please refer to the Speedline Metal Systems Product Application Guide where solutions up to 12m can be found.

All Studs spaced at 600mm centres. All studs are single unless stated as BOXED or TWIN FRAME construction. Cavity infills are 25mm glass mineral wool or 30mm rock mineral wool unless otherwise stated. **Denotes - 50mm glass mineral wool quilt.

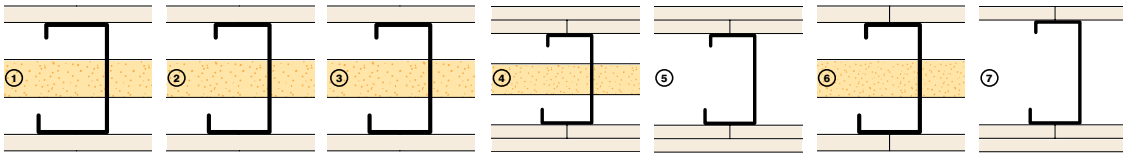
Plasterboard codes are: FR Fire Resistant plasterboard SR Sound Resistant Plasterboard IR Impact Resistant Plasterboard PD Predecorated Sound/Fire Resistant Plasterboard F Fermacell Gypsum Board S Standard

With studs spaced at 400mm centres, maximum height can be increased by 0.3m.

Ceramic Tiling - If Ceramic tiles are being fixed to the finished wall, stud centres must be reduced to 400mm to prevent cracking of tiles.

RwdB 45-49 SOLUTIONS

SOLUTIONS TO MEET RwdB 45-49



One layer of 12.5mm SR board on SPS 70mm Stud 0.5mm gauge at 600mm centres with 25mm APR

One layer of 15mm SR board on SPS 70mm Stud 0.5mm gauge at 600mm centres with 25mm APR

One layer of 15mm IR board on SPS 70mm Stud 0.5mm gauge at 600mm centres with 50mm APR

Double layer of 15mm FR board on SPS 70mm Stud 0.5mm gauge at 600mm centres with 25mm APR

Double layer of 12.5mm S Wall board on SPS 70mm Stud 0.5mm gauge at 600mm centres

One layer of 15mm PD board on SPS 70mm Stud 0.5mm gauge at 600mm centres with 50mm APR

75mm Stud 0.6mm gauge clad with 12.5mm Fermacell + opposite side 12.5mm + 10mm Fermacell

HEAVY	Stud Size	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Double Layer		Reference
								12.5mm	15mm	12.5mm	15mm	
	SPS70	HD	3.6	95	30		47	SR				7008
	SPS70	HD	3.8	100	30		48		SR			7011
	SPS70	HD	3.8	100	60			45**	IR			7028

SEVERE	Stud Size	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Double Layer		Reference
								12.5mm	15mm	12.5mm	15mm	
	SPS70	SD	4.9	130	120		49				FR	7029
	SPS70	SD	4.6	120	60	46				S		7012
	SPS70	SD	3.8	100	60	47**			PD			7030

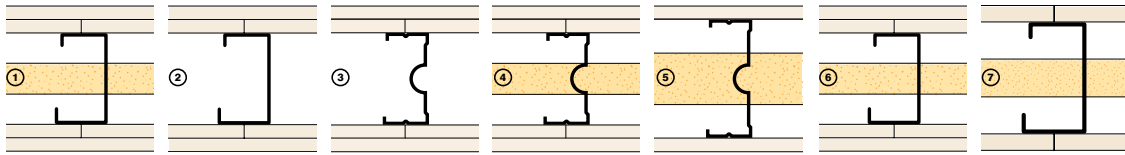
FERMACELL	Stud Size	Insulation Material	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Board Requirements		Reference
	75mm stud 0.6 gauge	n/a	4.5	110	30	46		One side clad with 12.5mm Fermacell the opposite clad with 12.5mm + 10mm Fermacell		1S16

** denotes 50mm glass mineral wool APR.

*** denotes use of 67mm RW45. Note for greater heights please refer to the Speedline Metal Systems Product Application Guide where solutions up to 12m can be found.

RwdB 50-55 SOLUTIONS

SOLUTIONS TO MEET RwdB 50-55



SPS 70mm Stud clad with inner layer 15mm SR board outer layer 12.5mm IR board on both sides with 50mm APR

SPS 70mm Stud clad with double layer of SR board. See chart below for thickness of board

AS 70 Acoustic Stud clad with double layer of 12.5mm FR board

AS 70 Acoustic Stud clad with double layer of 12.5mm FR board with 25mm APR

AS 70 Acoustic Stud clad with 1 layer of 15mm PD board with 70mm rock mineral wool insulation

SPS 70mm Stud 0.5mm gauge on 600mm centres clad with double layer either side of 15mm SR board inner 15mm PD board outer with 25mm APR

75mm Stud 0.6mm gauge at 600mm centres clad with a 12.5mm Fermacell board. See chart for insulation

SEVERE	Stud Size	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Double Layer		Reference
								12.5mm	15mm	12.5mm	15mm	
	SPS70	SD	4.7	125	90		53**			IR(O)	SR(I)	7021
	SPS70	SD	4.6	120	60	52				SR		7013
	SPS70	SD	4.9	130	90	52					SR	7015
	AS70	SD	4.6	120	120		50			FR		A7006
	AS70	SD	4.6	120	120		54			FR		A7007
	AS70	SD	3.8	100	60	51***			PD			A7003
	SPS70	SD	4.9	130	90		55			SR(I)	PD(O)	7031

FERMACELL	Stud Size	Insulation Material	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Double Layer		Reference
								10mm	12.5mm	10mm	12.5mm	
	75mm stud 0.6 gauge	60mm Mineral Wool	4.5	100	60		54		F			1S21
	75mm stud 0.6 gauge	40mm Mineral Wool 45 kg/m ³	4.5	100	60		52		F			1S21

Note for greater heights please refer to the Speedline Metal Systems Product Application Guide where solutions up to 12m can be found.

All Studs spaced at 600mm centres. All studs are single unless stated as BOXED or TWIN FRAME construction

Cavity infills are 25mm glass mineral wool or 30mm rock mineral wool unless otherwise stated. *Denotes – Two 100mm glass mineral wool quilts.

Denotes – 50mm glass mineral wool quilt. *Denotes – 70mm rock mineral wool in cavity.

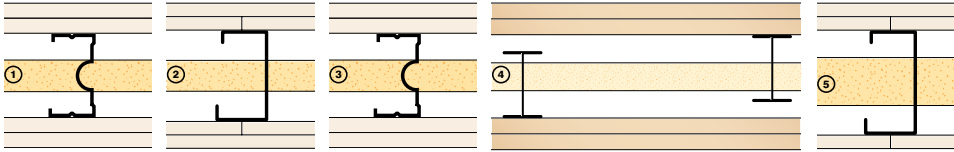
Plasterboard codes are: FR Fire Resistant plasterboard SR Sound Resistant Plasterboard IR Impact Resistant Plasterboard PD Predecorated Sound/Fire Resistant Plasterboard F Fermacell Gypsum Board

With studs spaced at 400mm centres, maximum height can be increased by 0.3m.

Ceramic Tiling – If Ceramic tiles are being fixed to the finished wall, stud centres must be reduced to 400mm to prevent cracking of tiles.

Rw dB 56-59 SOLUTIONS

SOLUTIONS TO MEET RwdB 56-59



AS70 Acoustic Stud at 600mm centres clad with double layer of SR board with 25mm APR

SPS70 Stud 0.5mm gauge 600mm centres double layers of SR board with 25mm APR

AS70 Acoustic Stud at 600mm centre clad either side with 15mm SR(I) and 15mm PD board (outer) with 50mm APR

Double layers of SR board fixed to 60mm I Stud at 300mm centres staggered in 72mm track with 25mm APR

75mm Stud 0.6 gauge clad one side with 12.5mm Fermacell and the other side with 12.5mm and 10mm Fermacell - 70mm Rock Mineral Wool

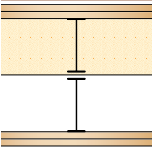
SEVERE	Stud Size	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Single Layer		Double Layer		Reference
								12.5mm	15mm	12.5mm	15mm	
	AS70	SD	4.6	120	60		58			SR		A7004
	AS70	SD	4.9	130	90		59				SR	A7005
	SPS70	SD	4.9	130	90		56				SR	7019
	AS70	SD	4.9	130	90		58**				SR(I)PD(O)	A7010
 60mm I Stud at 300mm centres staggered in 72mm track		SD	3.9	120	60		59			SR		SS003
 60mm I Stud at 300mm centres staggered in 72mm track		SD	3.9	130	90		59				SR	SS004
70mm C Stud at 600mm centres with Resilient Bar fixed perpendicular to the studs one side only at 600mm centre		SD	4.1	142	90		58**			IR (O)	SR(I)	RB006

FERMACELL	Stud Size	Insulation Material	Max Height	Nominal Width	Fire Resistance	Sound Insulation No Infill RwdB	Sound Insulation With Infill RwdB	Board Requirements	Reference
	75mm stud 0.6 gauge	70mm Mineral Wool 30 kg/m³	4.5	110	60		56	One side clad with 12.5mm Fermacell the opposite clad with 12.5mm + 10mm Fermacell	1S29

Note for greater heights please refer to the Speedline Metal Systems Product Application Guide where solutions up to 12m can be found.

**Denotes – 50mm glass mineral wool quilt.


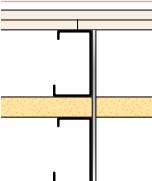
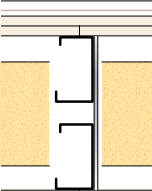
Rw dB 60 & ABOVE SOLUTIONS

SEVERE	I Stud Width mm	Max Height m	Nominal Weight kg/m ²	Nominal Width mm	Fire Resistance mins	Sound Insulation RwdB	Test Reference
 <p>I Stud Frames (300mm overall) 2m layers 15mm sound resistant wallboard each side. No cross bracing 100mm glass mineral wool</p>	50	2.7	53	300	90	69	TW001
	60	3.9	54	300	90	69	TW002
	92	4.5	55	300	90	69	TW003

RESILIENT BAR WALLS

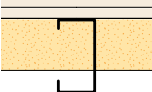
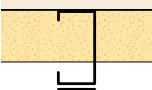
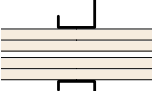
SEVERE	Part Grade BS5234	Max Height m	Nominal Weight kg/m ²	Nominal Width mm	Fire Resistance mins	Sound Insulation With Infill RwdB	Reference
70mm C Stud at 600mm centres with Resilient Bar fixed perpendicular to the studs both sides at 600mm centres. Two layers of 15mm sound resistant plasterboard. 50mm glass mineral wool insulation.	SD	4.2	54	164	90	63	RB005
70mm C Stud at 600mm centres with Resilient Bar fixed perpendicular to the studs one side only at 600mm centres. With inner layer of 15mm sound resistant plasterboard and outer layer of 12.5mm impact resistant plasterboard 50mm glass mineral wool insulation.	SD	4.1	52	142	90	60	RB006
70mm C Stud at 600mm centres with Resilient Bar fixed perpendicular to the studs both sides at 600mm centres. With inner layer of 15mm sound resistant plasterboard and outer layer of 12.5mm impact resistant plasterboard 50mm glass mineral wool insulation.	SD	4.1	53	159	90	63	RB007




TWIN FRAME WALLS


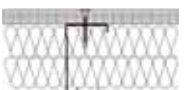
SEVERE	Part Grade BS5234	Max Height m	Nominal Width mm	Fire Resistance mins	Sound Insulation with Infill RwdB c,ctr	Test Ref
 <p>50mm C Stud Twin Frame clad with 2 x 15mm SR Plasterboard Nom Density 12.5 Kg/m² 2 x 50mm APR</p>	SD	6.2	210	90	60 (-3:-9)	PW001
 <p>50mm C Stud Twin Frame clad with 2 x 15mm SR Plasterboard Nom Density 12.5 Kg/m² 2 x 50mm APR</p>	SD	6.2	250	90	60 (-2:-8)	PW002
 <p>50mm C Stud Twin Frame clad with 2 x 15mm SR Plasterboard Nom Density 12.6 Kg/m² or greater 2 x 50mm APR</p>	SD	6.2	250	90	63 (-3:-9)	PW005
 <p>50mm C Stud Twin Frame clad with inner layer 15mm SR plasterboard. Outer layer 15mm PD plasterboard 1 x 25mm APR</p>	SD	6.2	200	90	62 (-4:-11)	PW003
 <p>50mm C Stud Twin Frame clad with inner layer 15mm SR plasterboard. Outer layer 15mm PD plasterboard 1 x 100mm APR</p>	SD	6.2	200	90	64 (-2:-9)	PW004

Rw dB 60 & ABOVE SOLUTIONS

SOLUTIONS TO MEET Rw dB 60 & ABOVE

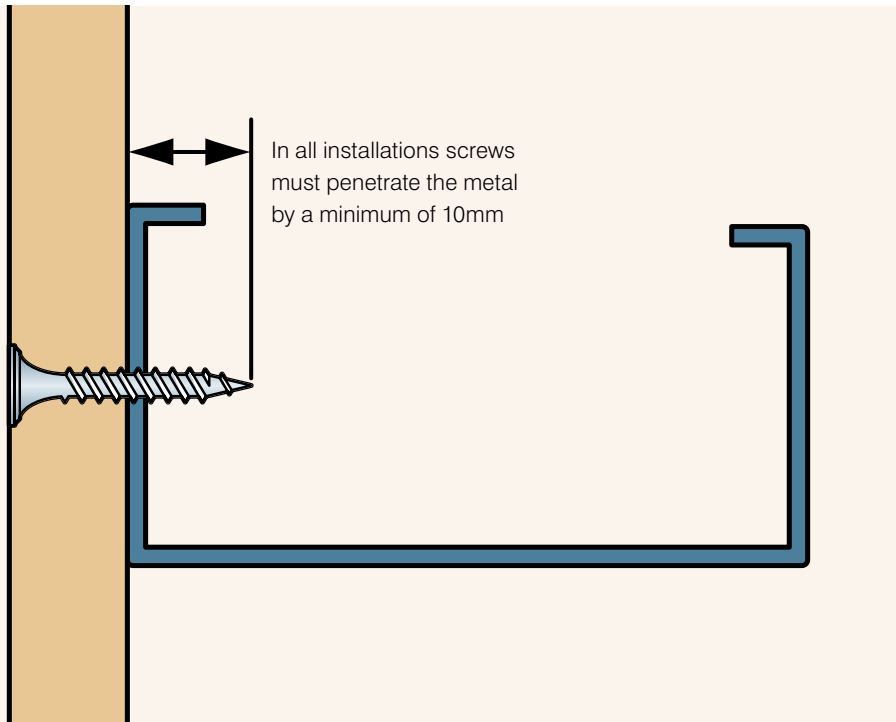
FERMACELL	Stud Size	Insulation Material	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation With Infill Rw dB	Double Layer		Reference
	BS5234							10mm	12.5mm	
	75	50mm Mineral Wool 50kg/m ³	SD	5	120	90	62	12.5 + 10		1S31
	Twin 75	50mm Mineral Wool 50kg/m ³	SD	3.5	≥200	90	64	12.5 + 10		1S32
	Twin 75 @ 400mm centres	50mm Mineral Wool 50kg/m ³	SD	3.5	≥200	60	64	10 + 10		1S32/2

VERSALINER	Stud Size	Insulation Material	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation With Infill Rw dB	Double Layer		
	BS5234							9mm	10mm	12.5mm
	70	Nil	HD	3	100	30	40			12.5
	70	60mm RW3	HD	3	95	60	50			12.5
	70	2 x 25mm RW5	SD	3	115	120	57		10 + 12.5	

VERSAFIRE	Stud Size	Insulation Material	Part Grade	Max Height	Nominal Width	Fire Resistance	Sound Insulation With Infill Rw dB	Double Layer		
	BS5234							9mm	10mm	12.5mm
	70	60mm 80kg/m ³		3	148	60	45	9		
	70	2 x 30 100kg/m ³		3	94	120	48			12

RELEVANT BRITISH STANDARDS

STANDARDS



HEALTH & SAFETY PRODUCT INFORMATION

PRODUCTS

Cold rolled sections manufactured from pre galvanised mild steel. Some sections may be manufactured from pre painted material.

PRODUCT USE

Always use products for the purpose intended as described in our technical literature. When subjected to elevated temperatures during welding or cutting, toxic fumes are produced. Inhalation of these may cause metal fume fever, a short lasting condition with symptoms similar to those of influenza. Therefore adequate ventilation or fume extraction should be provided, and where necessary, protective masks should be worn.

If skin irritation occurs, rinse well with clean cold water, then wash thoroughly. If symptoms persist obtain medical advise.

In the event of eye contamination or if any product is swallowed seek medical advise immediately.

Metal products may have sharp corners and edges which can cause lacerations. Always use suitable gloves when handling.

When working overhead or when cutting metal products, the use of protective eye glasses is advisable.

Metal is a good conductor of electricity. Proper precautions should be taken when working near live power lines or electrical equipment.

Metal can become charged. Static electricity may cause sparks when earthed.

Personal hygiene is important, always wash hands well particularly before eating.

BS EN 10143: 2006

Continuously hot-dip steel sheet and strip.

BS EN 10346: 2009

Continuously hot-dip coated strip and sheet of low carbon steel for cold forming.

BS EN 10162: 2003

Specification for cold rolled steel sections.

BS 7364: 1990

Specification for galvanised steel studs and channels for studs and sheet partitions and linings using screw fixed gypsum wallboards.

BS 1230: 1994

Part 1
Specification for plasterboard excluding materials submitted to secondary operations.

BS 8212: 1995

British Standard Code of Practice for dry lining and partitioning using gypsum plasterboard.

BS 476: 1987

Fire tests on building materials and structures.

Part 20:
Method for determination of the fire resistance of elements of construction (general principles).

Part 22:
Methods of determination of the fire resistance of non-load-bearing elements of construction.

Part 23:
Methods for the determination of the contribution of components to the fire resistance of a structure.

BS 4787: 1995

Part 1:
Internal and external wood door sets, door leaves and frames.

BS 5234: 1992

Partitions (including matching linings).

Part 1:
for design and installation.

Part 2:
Specification for performance requirements of components and assemblies, and methods of test.

BS 8290: 1991

Suspended ceilings.

Part 1:
Code of practice for design.

Part 2:
Specification for performance requirements of components and assemblies and methods of test.

Part 3:
Code of practice for installation and maintenance.

BS EN 14195: 2005

Metal framing components for gypsum plasterboard systems - Definitions, requirements and test methods.

SUSTAINABILITY AND TESTING

SUSTAINABILITY

CERTIFICATION

Speedline regard the issue of sustainability as a core social, as well as corporate, responsibility. This has been recognised in the manufacturing process of Speedline metal systems by the award of BS ISO 14001:2004 for its Environmental Management System and the Steel Construction Sustainability Charter where our supplier became the first cold roll-forming company to be awarded the prestigious Gold standard.

It is also recognised that Environmental Responsibility is a local issue as well as global issue. We were therefore pleased to see that the Speedline manufacturing process was given a Local Authority Borough Platinum Environmental Charter Award following an audit of Environmental management procedures and award of BS ISO 14001:2004.

The Speedline manufacturing process will continue to pursue sustainability as a key business objective. The cornerstone of this is the societal, economic and environmental sustainability review of our operations carried out in the SPeAR Report from Arup. This report gives us both an assessment of our current environmental position as well as identifying key areas for improvement in the future.



BS ISO 14001:2004



STANDARDS

TESTING FACILITIES

The Speedline range of dry lining and ceiling products have been independently tested or assessed by accredited laboratories.

This document comprises of a collation of data carried out using a number of different testing facilities.



FACILITIES USED:

- BRE Garston - Fire Acoustic & Mechanical
- BTC East Leake - Fire & Acoustic
- Salford University - Acoustic & Mechanical
- Strathclyde University - Mechanical
- WFRRC Warrington - Fire
- Aycliffe Research - Fire
- SRL Sudbury - Acoustic

For further information on the individual tests or to see where the test or assessment was carried out please quote the certification references.

All sound insulation data is based on laboratory evaluation of the building element in isolation and cannot reproduce your installed local conditions.

The actual tests carried out are used to offer an order of magnitude comparison for the performance of the various systems. Sound insulation on site is a function of the partition chosen and the associated structures in which it is installed. Speedline cannot take any responsibility for overall design and would advise that specialist advice is sought at an early stage of design.

All test data and system specifications are for systems constructed with materials and components as shown. The inclusion of other components without prior approval or constructed on site contrary to this document will invalidate test certification and system performance.



SIGNIFICANTLY MORE KNOW-HOW

SIG Insulations, the insulation division of SIG plc, is the UK's market leading specialist distributor of insulation, dry lining and related products to construction and industry, via its multi-company structure.

Full company details are on the back cover of this brochure.



PRODUCTS & ACCESSORIES

Our comprehensive product list highlights common building applications and the materials we supply. Not just all the major brand names in thermal and acoustic insulation, dry lining and fire protection, but also all the additional building products and accessories you need.



TECHNICAL

Although best known for product supply, SIG Insulations teams of specialist advisers also offer support services through the whole construction process to architects, designers, building control managers and contractors, with the provision of sound, impartial technical advice on specification and application choice.



SUSTAINABILITY

SIG Insulations companies are uniquely positioned within the supply chain to advise customers, house builders and specifiers, from an independent and impartial perspective on what sustainability means to you.

Vital Statistics

52 branches

1.72 million sq.ft. of warehousing space

400 commercial vehicles

1,500 staff

60,000 products

Every day, we...

Talk to 7,000 customers

Make 3,000 deliveries

- Insulation and building products for walls, roofs, lofts and floors
- Acoustic and timber frame insulation
- Dry lining and partitioning
- Fire protection products
- Civil engineering products
- Industrial lining
- Industrial H&V
- High temperature insulation
- Fabrication, refrigeration and cold storage

- Technical information
- COSHH
- Regulations updates
- Code for Sustainable Homes
- Part L guide
- Fastrack CAD
- CPD seminars