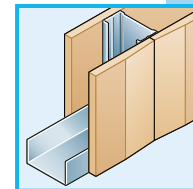


Partitioning Systems

Acoustic Stud



A cost-effective way to achieve improved acoustic performance in both domestic and commercial situations Speedline Acoustic Stud has built in discontinuity which results in improved sound insulation.

Acoustic Stud is designed to offer better sound insulation in the key speech frequency bands (250 to 1000 Hz) whilst maintaining structural strength and integrity.

This enables slimmer partitions to be constructed, maximising floor space but still satisfying high acoustic requirements.

Benefits

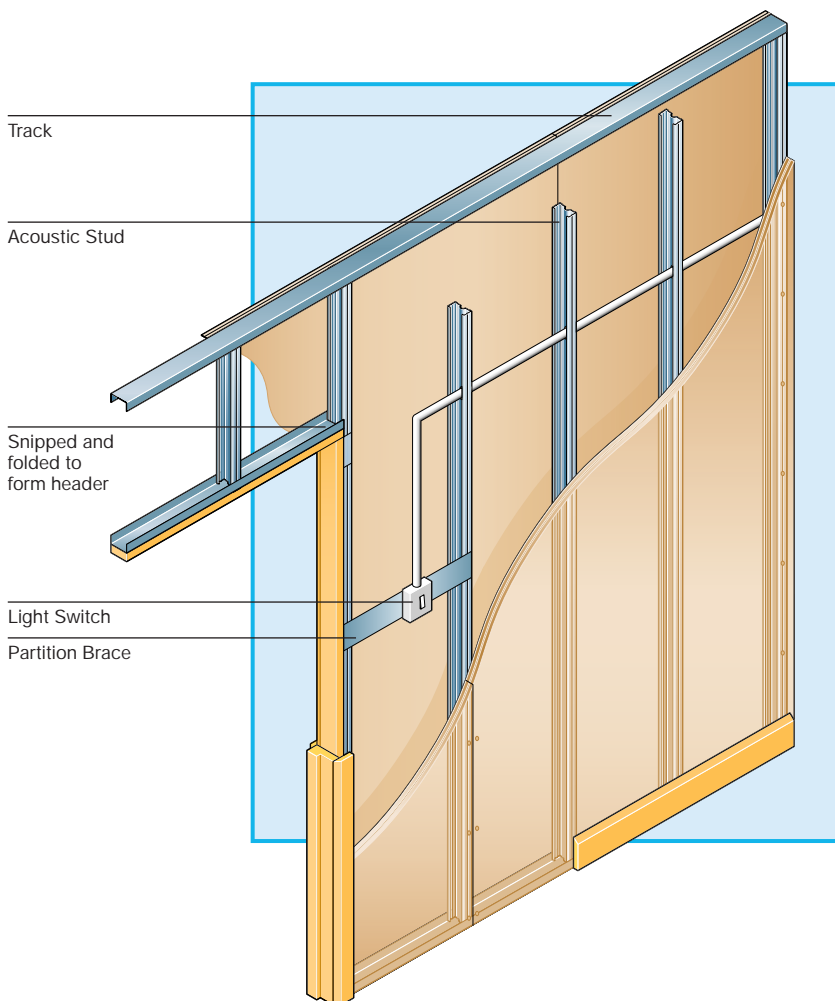
- Extremely cost-effective
- Ideal for domestic and commercial use
- Reduced installation time
- Slimmer partitions maximise floor space
- Quieter living spaces
- Greater sound insulating performance
- Reduces the transfer of common noise

Acoustic Stud

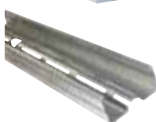
Partitions built using Acoustic Stud are constructed in exactly the same way as our standard C Stud partitions.

All existing track sections can be utilised with Acoustic Studs.

Plasterboard fixing centres are also the same.

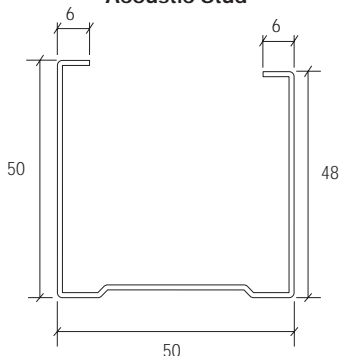


Acoustic Stud

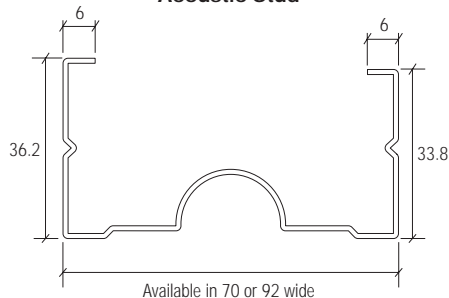


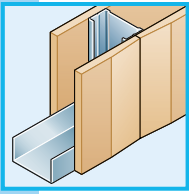
Product Description	Stock Lengths Metre	Weight per Length Kgs
50mm Acoustic Stud x 0.5mm Flange Dimensions 50/48mm	2.4 2.7	1.50 1.70
70mm Acoustic Stud x 0.5mm Flange Dimensions 33.8/36.2mm	2.7 3.0 3.6 4.2	1.66 1.85 2.22 2.59
92mm Acoustic Stud x 0.5mm Flange Dimensions 33.8/36.2mm	3.6 4.2	2.56 3.00

Acoustic Stud



Acoustic Stud



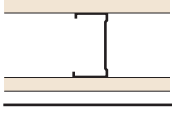
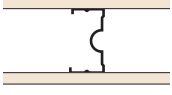
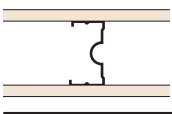
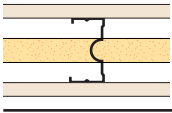
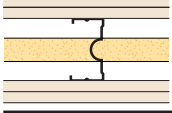
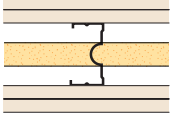
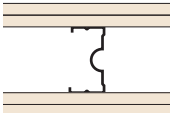
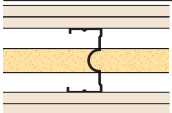
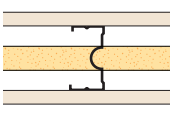


Partitioning Systems

Acoustic Stud

Acoustic Stud Configurations

Acoustic Studs can be used in a wide range of partition designs, depending on specification requirements. An example of some system configuration is detailed below:

		Maximum height m	Nominal thickness mm	Fire Resistance minutes	Sound insulation R,dB	Test Reference
	Studs: 50mm Acoustic Stud (AS50) Facings: one layer 15mm Sound Resistant plasterboard both sides	2.8	80	30	40	A5001
	Studs: 70mm Acoustic Stud (AS70) Facings: one layer 15mm Fire Resistant wallboard both sides plasterboard	3.8	100	60	41	A7001
	Studs: 70mm Acoustic Stud (AS70) Facings: one layer 12.5mm Sound Resistant plasterboard	3.6	95	30	42	A7002
	Studs: 70mm Acoustic Stud (AS70) Facings: one layer 15mm Impact Resistant plasterboard Insulation: 70mm rock mineral wool	3.8	100	60	51	A7003
	Studs: 70mm Acoustic Stud (AS70) Facings: two layers 12.5mm Sound Resistant plasterboard Insulation: 25mm glass mineral wool	4.6	120	60	58	A7004
	Studs: 70mm Acoustic Stud (AS70) Facings: two layers 15mm Sound Resistant plasterboard Insulation: 25mm glass mineral wool	4.9	130	90	59	A7005
	Studs: 70mm Acoustic Stud (AS70) Facings: two layers 12.5mm Fire Resistant plasterboard	4.6	120	120	50	A7006
	Studs: 70mm Acoustic Stud (AS70) Facings: two inner layers 12.5mm Fire Resistant plasterboard Insulation: 25mm glass mineral wool	4.6	120	120	54	A7007
	Studs: 92mm Acoustic Stud (AS92) Facings: one layer of 15mm Sound Resistant plasterboard both sides Insulation: 75mm glass mineral wool	4.2	122	60	52	A9208

NEW
Meets Part E requirements
for internal wall

Flanking Noise

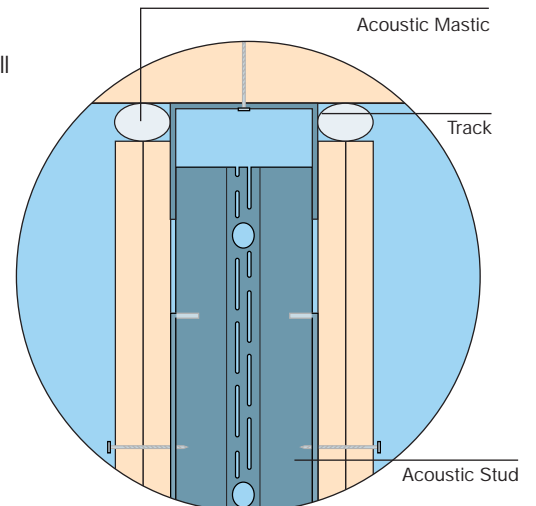
Flanking Transmission occurs when sound travels along elements shared by adjacent structures.

Sound does not always travel straight through the building element. If the wall, floor or partition concerned has good sound-reducing capabilities, the sound will travel from A to B by the easiest route, often around the sides or over the top!

It should be borne in mind that flanking transmission can exceed direct

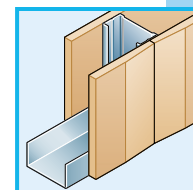
transmission and damage the overall capabilities of the construction if flanking constructions are not correctly specified and constructed.

To overcome this problem of flanking, any gaps in the installation must be filled with acoustic sealant on all edges and on both sides of the partition.



Partitioning Systems

Acoustic Stud



Construction

Partitions built using Acoustic Stud are constructed in exactly the same way as those built using standard C Studs. All existing track sections can be utilised with Acoustic Studs and plasterboard-fixing centres will be exactly the same.

Attention to detail is essential.

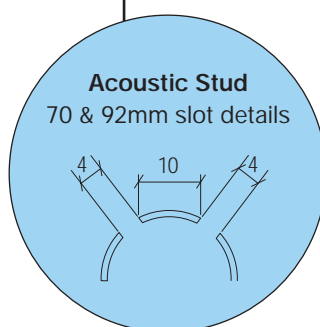
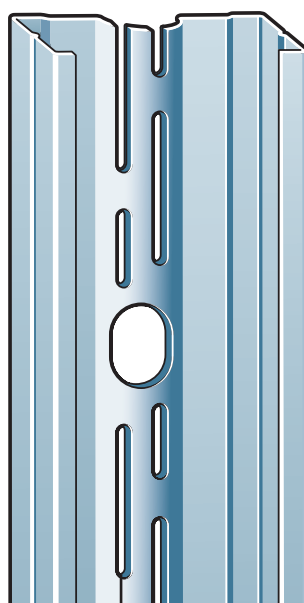
Care must be taken in construction to ensure a soundproof structure performs to its maximum capability.

As sound - like water, light or air - will find the smallest crack and expose it as a weak point, your structure should be built as if it needs to be waterproofed.

For example, a single 25mm hole in an otherwise acoustically sound partition can reduce performance by up to an incredible 15 dB.

Although a 25mm hole should be visible a crack 1mm x 1m will not always be obvious and, if not treated with an acoustic sealant, will be detrimental to the structure.

An acoustic construction is only as good as its weakest point!



Installation Benefits

Acoustic Studs use same plasterboard fixing centres

Are as simple to partition with C Studs

Existing track sections can be utilised

Explanation of Terms

Every time an amendment to the Building Regulations is introduced a new list of terms and abbreviations follows.

This comprehensive list will help to decipher some of the terms and abbreviations found in literature relating to acoustics and Part E.

Building Element	Walls, floors and roofs, etc.
C_{tr}	The correction to a sound insulation quality to take into account low frequency noise.
Decibel (dB)	The most commonly used unit to measure sound.
$D_{nT,w}$	The measurement used to measure the airborne sound insulation between two rooms (on site).
$D_{nT,w}+C_{tr}$	See above, but with the low frequency correction factor included.
Flanking Transmission	Sound transmitted between two rooms using an indirect path e.g the top or bottom of a separating wall (see further details below).
Frequency	The number of pressure variations per second that gives a sound its distinctive tone.
Hertz (Hz)	The unit of the frequency of the sound.
Impact Sound	Sound resulting from direct impact on a building element.
Internal Floor	Any floor that is not a separating floor.
Internal Wall	Any wall that does not have a separation function.
$L_{nT,w}$	The measurement used to measure the impact sound insulation of floors (on site). $L_{nT,w}$ = laboratory testing.
Noise	Unwanted sound.
Pre-Completion Testing (PCT)	A new requirement to Part E where structures not conforming to the RSD will be tested prior to completion to check they reach the required standards.
Robust Standard Detail (RSD)	A collection of pre-approved constructions that, if used, negate the need for PCT
R_w	The measurement used to relate the sound insulation of a material or building element in a laboratory.
Separating Floor	Floor that separates flats or rooms for residential purposes.
Separating Wall	Wall that separates adjoining dwellings, houses, flats or rooms.
Sound Reduction Index (SRI)	A quantity measured in a laboratory that characterises the sound insulation properties of a material or building element in a stated frequency band.