

BY
YOUR
SIDE®

Version 4.1 February 2022

MAKING YOUR WORLD SOUND QUIETER

Siderise acoustic insulation
solutions for interiors

ACOUSTIC SOLUTIONS FOR INTERIORS

The different soundscapes within a building fundamentally define how we experience and engage with its internal spaces. By finely tuning these acoustic environments, we can encourage greater focus, aid communication and understanding, and even help occupants to feel more positive and relaxed.

Good acoustic design is subtle, almost invisible to building occupants, enabling them to move through spaces without intrusive noise disrupting their experience. To achieve this, designers and developers need to think carefully about how sound travels within the building, considering not only the structure of building elements and partitions, but also the various voids which wind throughout them.

Preventing unwanted sound transmission

Sound separation between internal spaces is vital. Unwanted sound transmission can severely impact the function and success of a space. There are a number of common voids within wall and floor constructions which can act as a channel for sound to travel into adjoining spaces.

These include:

- Suspended ceiling voids
- Raised Access floor voids
- Partition abutments to façades

Siderise products are made from robust materials and we provide customers with acoustic and fire solutions to suit their needs.

Each of these paths should be considered from an acoustic perspective, employing specialist solutions which are designed to reduce the noise transmission through these paths. This is measured as their Sound Reduction Index (SRI). Whilst the exact performance requirements and product selection will depend on the project, choosing solutions which have been designed, developed, and tested for noise control applications can help to correct any transmission losses and ensure acoustic integrity.

Delivering exceptional room-to-room sound reduction

Over our 45 years in the business, we have developed interior acoustic solutions suitable for the interiors of all kinds of buildings, including:

- Residential
- Offices
- Healthcare
- Education
- Retail
- Leisure and sports
- Industrial

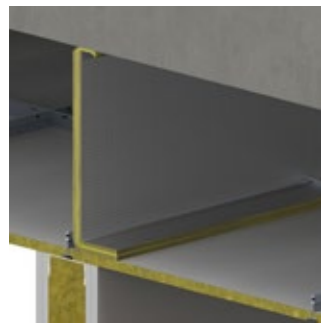
All Siderise products are made from robust materials and have been subject to rigorous testing, ensuring high-performance solutions that are designed to last. With decades of experience, our skilled Interiors Technical Team can also support designers in finding the most appropriate solutions to meet their project aims, whether solely related to acoustics or including passive fire protection too.



30 St Mary Axe (The Gherkin)

Table 1: Product application guide
Quick comparison of suitability and performance.

Product type	Noise control	Fire safety	Cut to size	Cut on site	Ceiling voids	Raised floors	Tops of wall	Façade abutment	Fire performance (min)	Acoustic performance (R _w)	Dnf,w up to:
CBX	●	—	—	●	●	—	—	—	—	29-33dB	55dB
FLX	●	—	—	●	●	—	—	—	—	23-27dB	50dB
CVB/LAM	●	●	—	●	●	—	—	—	30-60	23-25dB	45dB
CVB/P	●	—	—	●	●	●	—	—	—	28-31dB	55dB
RF	●	●	●	●	—	●	—	—	30-120	17-25dB	55dB
TW-PS	●	●	●	—	—	—	●	—	60-120	23-25dB	—
AVC	●	—	●	—	—	—	●	●	—	35-44dB	—
FIP	●	●	—	●	—	—	—	●	60	46dB	—
BM/P10	●	—	—	●	—	—	—	●	—	32dB	—
MC	●	●	●	●	—	—	—	●	120	44-52dB	—



SIDERISE CBX

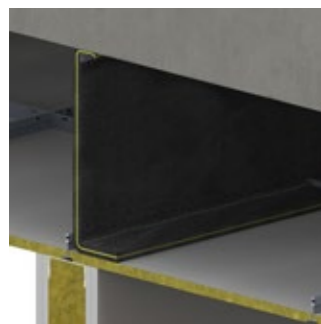
Flexible Acoustic Barriers for Suspended Ceilings

Description: Flexible acoustic barrier for suspended ceilings made from a thin, multi-layered fibrous quilt with a high mass core.

Application: Designed to free hang within ceiling voids above partition lines.

Key features

- Designed specifically for acoustic performance
- Acoustic performance (R_w): 29-33dB
- Dnf,w up to 55dB (airborne sound insulation performance for suspended ceilings)
- Easy to install



SIDERISE FLX

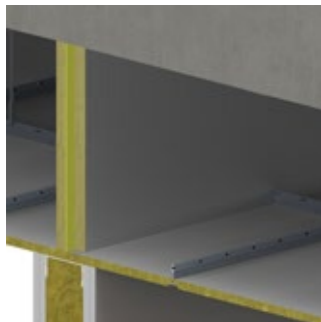
Flexible Acoustic Barriers for Suspended Ceilings

Description: Flexible acoustic barrier for suspended ceilings made from a thin multi-layered, open cell acoustic foam composite with high mass central core.

Application: Designed to free hang within ceiling voids above partition lines. Commonly used where the barrier is partially visible and its standard matt black finish may be preferred, or where a mineral fibre free product is required.

Key features

- Designed specifically for acoustic performance
- Acoustic performance (R_w): 23-27dB
- Dnf,w up to 50dB (airborne sound insulation performance for suspended ceilings)
- Easy to install



SIDERISE CVB

Acoustic Void Barrier

Description: Acoustic void barriers for suspended ceilings. Semi-rigid composite sheets designed for free standing in ceiling voids. A fibrous based product that is available with or without a central high mass core.

Application: The barriers are installed free standing, and are compression fixed within typical voids including those formed at partition lines and the cavity formed at floor slab abutments to curtain walls. They can be used in a variety of building types.

Key features - CVB/LAM

- Designed specifically for acoustic performance
- Acoustic performance (R_w): 23-25dB
- Dnf,w up to 45dB (airborne sound insulation performance for suspended ceilings)
- Fire performance: 30-60 minutes
- Can be used in air plenum applications

Key features - CVB/P

- Designed specifically for acoustic performance
- Acoustic performance (R_w): 28-31dB
- Dnf,w up to 55dB (airborne sound insulation performance for suspended ceilings)
- Can be used in air plenum applications



SIDERISE RF

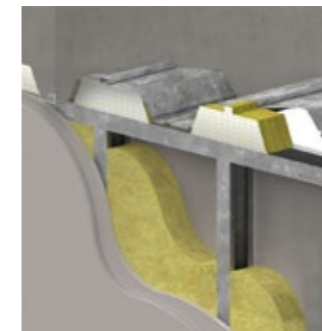
Cavity Barriers and Firestops for Raised Access Floors

Description: Cavity barrier and firestop system. Whilst their primary purpose is passive fire protection, these products also help to reduce sound transmission by sealing the voids between raised access floors.

Application: These simple to install systems have been tested for fire performance, acoustic performance and for use as a plenum liner — making them suitable for a number of applications. The range also includes options to either subdivide large uninterrupted cavities or to provide continuity of fire and sound resistance when aligned underneath partitions.

Key features

- Easy to install, one-piece system
- Offer unique vertical compression
- Can be used in air plenum applications
- Suitable for use in void heights up to 600mm
- Acoustic performance (R_w): 21-25dB
- Up to 120 minutes fire resistance
- Integral smoke barrier
- Dnf,w up to 55dB (airborne sound insulation performance for raised access floors)



SIDERISE TW-PS

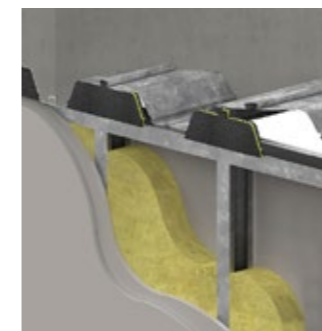
Firestops for Profiled Decks

Description: Fire stops for profiled floor decks. Supplied either cut to shape or as a full sheet, these semi-rigid boards are made from compressed A1-rated mineral wool insulation with foil facings and are designed to seal the junction between the tops of compartment walls and the underside of profiled decking.

Application: Used in small and/or irregular shaped cavities at 'tops of walls' which can be found in a wide range of buildings, both new and existing.

Key features

- Offers both fire and acoustic performance
- Acoustic performance (R_w): 23-25dB
- Fire performance: 60-120 minutes
- Upgradable with Siderise AVC
- Custom profiles available



SIDERISE AVC

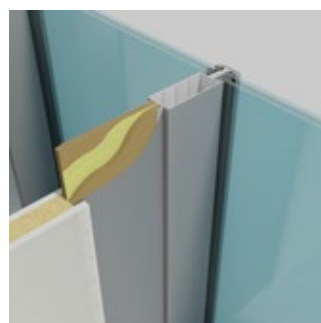
Acoustic Control for Profiled Decks

Description: Acoustic void closures for tops of walls. Supplied as either die-cut or sheets, these semi-rigid composite sheets are designed to close small apertures and voids.

Application: Used in small and/or irregular shaped cavities at 'tops of walls' which can be found in a wide range of buildings, both new and existing.

Key features

- Designed specifically for acoustic performance
- Acoustic performance (R_w): 35-44dB
- Dnf,w up to 55dB (airborne sound insulation performance for suspended ceilings)
- Custom profiled to suit aperture / roof deck
- Can be used in conjunction with Siderise firestops



SIDERISE FIP

Acoustic Panel

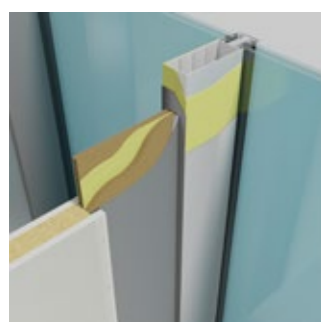
Description: Thin and rigid acoustic panel made from a multi-layered board, offering excellent noise control with a thickness of just 31mm.

Application: Specifically developed to be installed at the gap between curtain wall or window mullions and internal walls. Its thin construction maintains the clean lines of curtain wall construction, in keeping with the internal partition or mullion and offering

space and daylighting gains. It can also be used in many other conditions that demand the combination of a high SRI performance with a minimal thickness.

Key features

- Acoustic performance (R_w): 46dB
- Very thin construction – 31mm
- Simple to detail and install
- Up to 1 hour fire resistance



SIDERISE BM/PIO/BOAK/SA

Acoustic Barrier Mat

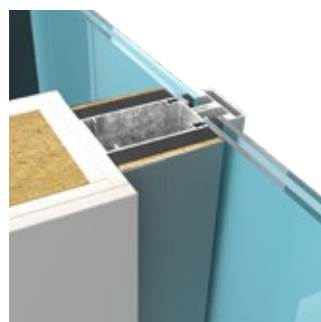
Description: A thin acoustic barrier mat designed to improve the sound insulation value of mullions.

Application: Used where high performing partitions, or partition and Siderise FIP panel combinations about a lightweight, hollow mullion. It is installed on two or three of the external sides, offering enhanced acoustic performance in a thin product. This can

then be covered with a decorative 2mm PPC Aluminium cover plate, tapered at the leading edge at the glass (not supplied).

Key features

- High acoustic performance
- Thin and flexible
- Reduces ‘coincidence dip’
- Low odour



SIDERISE MC SYSTEM

Mullion overclad system

Description: Mullion overclad system for where partitions about single mullions with acoustic only and acoustic and fire safety enhancement options.

Application: Suitable for use on both ‘Stick’ and ‘Unitised’ curtain wall system, and for any mullion size from 80mm–250mm by simply trimming the ‘male’ cover plates to suit – which are supplied in either ‘Small’ for 80mm–135mm mullions or ‘Large’ for 136mm–255mm mullions.

Key features

- Options for both acoustic only and acoustic and fire performance
- High acoustic performance
- Fire performance up to 120 minutes available
- Simple to detail and install

Table 2: Ceiling and Vertical Barrier combination performance guide

D_{nCw} performances of various ceiling constructions with upgrade options.

Generic Ceiling Type	Siderise Cavity Void Barrier upgrade options by type						
	CVB/LAM90R (23dB R_w)	CVB/LAM120R (25dB R_w)	CVB/5 (28dB R_w)	CVB/10 (31dB R_w)	CB5/P (29dB R_w)	CB10/P (33dB R_w)	CVB/10 + CB10/P (49dB R_w)
Metal pan – fleece (18dB D_{nCw}/D_{nFw})	33	33	33	34	35	37	46
Metal pan – pad to rear (28dB D_{nCw}/D_{nFw})	38	39	39	41	41	42	48
Metal pan – pad to rear c/w recessed lighting etc. (24dB D_{nCw}/D_{nFw})	34	35	35	37	37	38	44
MF Ceiling Tile (35dB D_{nCw}/D_{nFw})	43	44	44	44	46	47	50
MF Ceiling Tile c/w recessed lighting etc. (27dB D_{nCw}/D_{nFw})	37	38	38	40	40	41	47
Plaster Board ceiling (39dB D_{nCw}/D_{nFw})	46	47	47	47	48	51	53
Plaster Board ceiling c/w recessed lighting etc. (28dB D_{nCw}/D_{nFw})	38	39	39	41	41	42	48

Note: The analysis is based on the following assumptions:

- Negligible transmission through partition wall itself
- The ceiling void depth is 600mm (a typical value)
- No absorptive soffit lining (higher performances would result if present)
- The ceiling is discontinuous over the partition wall head
- Site installation (to a reasonably good standard) is allowed for.
- The predicted performances are rounded to integer values



One Hyde Park, London

BY YOUR SIDE®

Siderise Special Products

Engineered acoustic solutions for equipment
manufacture and construction

United Kingdom

Siderise (Special Products) Ltd
Lady Lane Industrial Estate
Hadleigh, Suffolk, IP7 6BQ
T: +44 (0) 1473 827695

Sales Enquiries

T: +44 (0) 1473 827695
E: sales.sspl@siderise.com

Ordering and Customer Service

T: +44 (0) 1473 827695
E: service.sspl@siderise.com

Technical Support

T: +44 (0) 1473 827695
E: technical.sspl@siderise.com

www.siderise.com

Siderise Insulation

Passive fire solutions for the building
envelope

United Kingdom

Siderise Group, Forge Industrial Estate,
Maesteg, UK, CF34 0AY
T: +44 (0) 1656 730833 | F: +44 (0) 1656 812509

Middle East & India

Siderise Middle East Fz LLC, Office 132,
Al Shafar Investment Building,
Al Quoz Industrial Area 1, Dubai, UAE
T: +971 (0) 4 580 4999

Asia Pacific

Siderise (Asia Pacific) Pte. Ltd. 80 Robinson Road,
#02-00 Singapore 068898
T: +65-963 19310

