



# SIDERISE CW range: AB & CVB/C acoustic upgrades for curtain walling

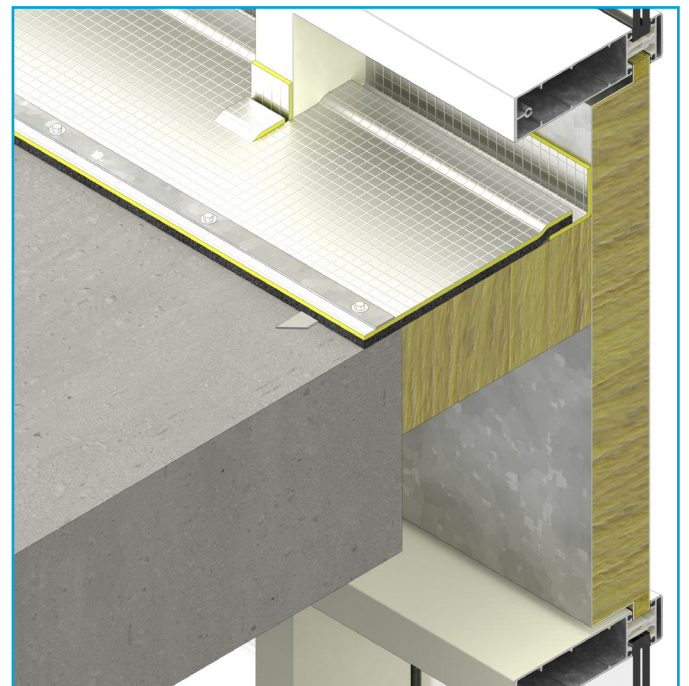
Acoustic barriers used as additional mass lines within curtain walling to form a higher performance sound barrier to improve floor-to-floor acoustic performance.

## Application

**SIDERISE AB acoustic upgrades for curtain walling** consist of a flexible acoustic composite for use as a mass overlay within curtain walling to form a high performance sound barrier. They represent a simple solution to the problem of improving 'floor-to-floor' acoustic performance when used in conjunction with **SIDERISE perimeter barriers & fire stops for curtain walling**.

**SIDERISE AB** is extremely quick and easy to install and is suitable for improving sound performance within all curtain walling environments.

As the product is flexible and thin it is ideal for curtain wall application as, unlike rigid boards or partitions, **SIDERISE AB** is designed to accommodate facade deflection.



## Benefits

- Reduces 'floor-to-floor' sound transmission
- Ideal for remedial treatment after installation of fire stops
- Accommodates facade movement
- Deforms to contours
- Quality assured to BS EN ISO 9001
- Flexible - easily cut, shaped and installed

## Product description

**SIDERISE AB acoustic upgrades for curtain walling** comprises a limp elastomeric heavy membrane applied to a flexible dense acoustic foam base layer. The upper surface is faced with a reinforced aluminium foil.

### ACOUSTIC CONSIDERATIONS

The fire stop between the floor slab and the facade represents a point of significant potential weakness in vertical sound transmission between floors.

Whilst technically representing an airborne sound transmission (through an extended area of the floor), this mode of sound passage is normally considered a component of total flanking performance of the facade system.

Given the acoustic significance of the fire stop region, it is essential to undertake acoustic performance assessments for this zone. This ensures that final floor-to-floor sound separation compliance is not restricted by transmission through the fire stop.

Our Facades technical team can calculate required minimum SRI values against a particular criteria and construction. Additional treatments can then be discussed, if necessary, to ensure compliance with this minimum performance rating.

## Acoustic performance

Table 1 illustrates the Weighted Sound Reduction Index (SRI) for **SIDERISE AB** material alone. See 'Acoustic improvement', for overall sound transmission performance when combined with **SIDERISE fire stops for curtain walling**.

High SRI values can be achieved by the combined use of **SIDERISE AB** together with a friction fit **SIDERISE CVB acoustic void barrier**.

Contact our Facades technical team for performance guidance on alternative constructions or to obtain 1/3 octave test data.

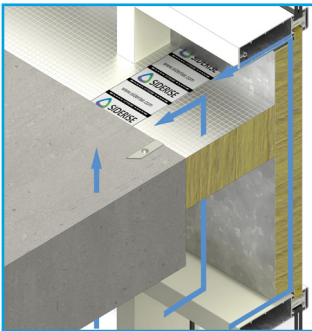


Fig 1. Main sound transmission modes at floor/facade abutment

Table 1 - Barrier grades & Weighted Sound reduction index

Product Code	Thickness (mm)	Weight (Kg/m <sup>2</sup> )	R <sub>w</sub> (dB)
AB5	8	5.5	25
AB10	12	10.5	29*

NOTE: \*Assessed value.

## Acoustic improvement

**SIDERISE AB** is commonly used in conjunction with our **SIDERISE CW range: Perimeter barriers & fire stops for curtain walling**.

**SIDERISE fire stops for curtain walling** already offer significant sound transmission loss performance (typically 22 - 25dB  $R_w$ ). The addition of a single **SIDERISE AB** overlay can further increase this up to 37dB( $R_w$ ).

When higher values are required, **SIDERISE CVB** can be installed beneath the fire barrier **SIDERISE AB** overlay to create a 'twin mass' system.

The arrangements in Figs 2 - 4, when tested in a sound laboratory in accordance with BS EN ISO 140-3 & rated to BS EN 717-1, provided the Weighted Sound Reduction Index ( $R_w$ ) values as stated.

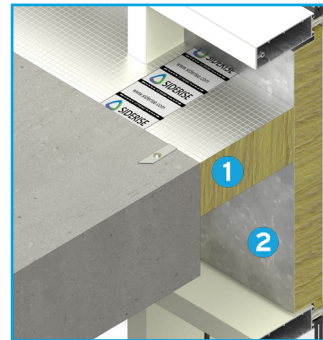


Fig 2. with SIDERISE fire stop

CW-FS60 = 23dB( $R_w$ )

CW-FS120 = 25dB( $R_w$ )

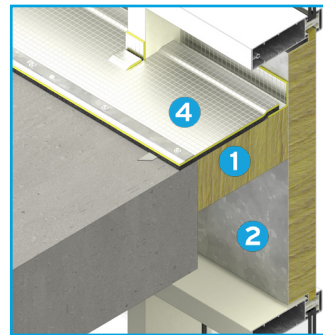


Fig 3. with SIDERISE fire stop + SIDERISE AB

CW-FS120 + AB5 = 33dB( $R_w$ )

OR

CW-FS120 + AB10 = 37dB( $R_w$ )

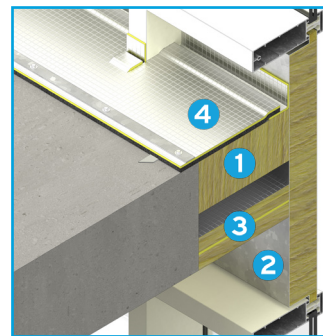


Fig 4. with SIDERISE fire stop + SIDERISE AB + SIDERISE CVB

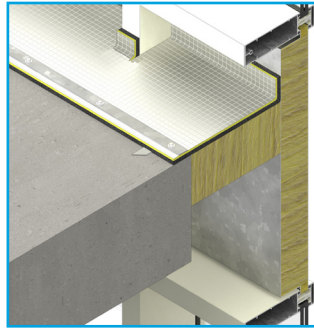
CW-FS120 + AB10 + 100mm airgap + CVB/10 = 51dB( $R_w$ )

### Products:

- 1 SIDERISE Cavity Barrier (CW-CB) or SIDERISE Fire stop (CW-FS)
- 2 Metal spandrel with SIDERISE Nexus Lamella Board Core
- 3 SIDERISE CVB acoustic void barrier
- 4 SIDERISE AB acoustic upgrade

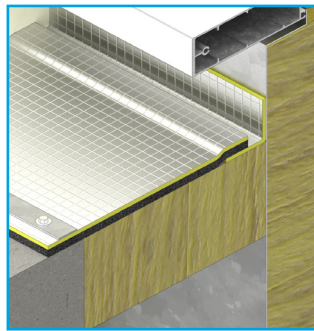
## Installation

**Fig 5:** (The preferred installation arrangement for use as an overlay to **SIDERISE fire stops for curtain walling**.) An oversize strip of the **SIDERISE AB** material should be laid on the upper surface of the fire stop. The product should extend onto the surface of floor slab by a minimum of 50mm. The lap should be attached to the slab by means of a metal strap and through mechanical fixings. The barrier should be returned up the facade's internal surface by at least 20mm.



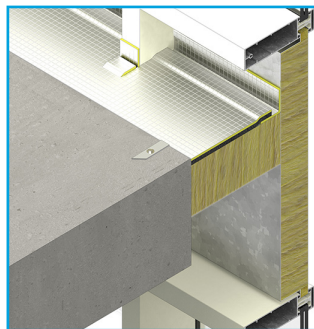
**Fig 5.** Returned edge to facade

**Fig 6:** An alternative to the return is the use of a strip of **SIDERISE BM/P5/BOAK/SA acoustic tape**. This is applied first to form a continuous angle section at the facade. **SIDERISE AB** is then tightly butted to the tape's vertical up stand. Joints between adjacent sections of the **SIDERISE AB** product should be overlapped by a minimum of 75mm. Alternatively, joints may be tightly butted and then sealed by the application of the acoustic tape.



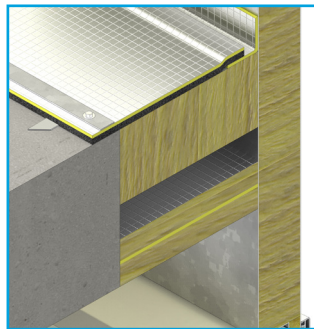
**Fig 6.** With acoustic tape instead of returned edge

**Fig 7:** In some conditions it is not possible for **SIDERISE AB** to extend over the floor slab. In these circumstances we suggest that the fire stop is installed with the upper surface recessed below the floor slab. **SIDERISE AB** is then installed within the recess formed. If possible we recommend that the joint at the abutment to the floor is sealed with acoustic tape or a continual mastic bead.



**Fig 7.** Recessed installation

**Fig 8:** Shows the typical application of **SIDERISE CVB** in conjunction with a **SIDERISE fire stop for curtain walling** and **SIDERISE AB**. **SIDERISE CVB** is usually supplied in sheet form and should be cut to the void dimension + 5mm (to provide a slight friction fit). The CVB is normally aligned to the bottom edge of the floor slab to maximise the air gap. In addition to the friction fit, the CVB barrier should also be mechanically retained. Suitable techniques include: a continuous metal strip or section supporting the underside of the CVB barrier, periodic flat metal plates or **SIDERISE 'B' series brackets**. All options should be fixed securely to the floor slab. In the case of periodic supports the required maximum support centres will alter with the CVB grade and void width. Typically 300-400mm maximum centres should be assumed. The joints between strips should be sealed using **SIDERISE foil tape**.



**Fig 8.** Typical slab edge closure with SIDERISE CVB

## Technical specification

### SIDERISE AB acoustic upgrades for curtain walling

<b>Form supplied (mm)</b>	2000 x 1200 sheet or cut strip available
<b>Colour</b>	Silver face
<b>Finish</b>	Aluminium foil facing to top side
<b>Thickness (mm)</b>	AB5 - 8; AB10 - 12
<b>Surface weight (kg/m<sup>2</sup>)</b>	AB5 - 5.5; AB10 - 10.5
<b>Central mass membrane</b>	Polymeric barrier
<b>Fire performance</b>	BS 476, Part 7: Class 1 BS 476, Part 6: I<12, I <sub>0</sub> <6

### SIDERISE CVB/C acoustic upgrades for curtain walling

<b>Form supplied (mm)</b>	1200 x 1000 sheet
<b>Finish</b>	Aluminium foil facing to both sides
<b>Thickness (mm)</b>	CVB/C5 - 53; CVB/C10 - 55
<b>Surface weight (kg/m<sup>2</sup>)</b>	CVB/C5 - 9; CVB/C10 - 15
<b>Mass membrane</b>	Polymeric barrier
<b>Fire performance</b>	BS 476, Part 7: Class 1 BS 476, Part 6: I<12, I <sub>0</sub> <6





## Further information

### PRODUCTS AVAILABLE

The following SIDERISE products are available and can also be specified using NBSPlus:

- SIDERISE CW range:
  - AB & CVB/C acoustic upgrades
  - FB curtain wall fireboard
  - Perimeter barriers and fire stops
- SIDERISE FIP facade interface panel
- SIDERISE LGS linear gap seal - facades
- SIDERISE MI mullion/transom inserts
- SIDERISE NXR Nexus Lamella boards
- SIDERISE NXS firesafe spandrel insulation
- SIDERISE 'Open State' horizontal & vertical cavity barriers for rainscreen facades
- SIDERISE BM/P5/BOAK/SA acoustic tape
- SIDERISE 'B' series brackets
- SIDERISE foil tape: FT 120/45

### AVAILABLE CPDS

Contact SIDERISE for further information on our CPDs:

- SIDERISE Acoustic Products & Performance - Information for Noise Consultants
- SIDERISE Facade Acoustics
- SIDERISE Cavity Barriers in Curtain Wall Facades

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