# Siderise MC System

Siderise MC Mullion Overclad System is a decorative and robust mullion liner for Acoustic or Acoustic & Fire enhancement of Curtain Walling Mullions.



## **Application**

Siderise MC System provides a practical means of improving the sound insulation performance of curtain walling mullions where partitions abut, a very common issue where noise levels readily travel between adjoining offices on the same floor via the Hollow Mullion.

Their application to the mullions substantially improves the acoustic performance of a lightweight aluminium mullions, Acoustic only and Acoustic + 2 Hour Fire rated versions are available.

The Siderise MC System is an external treatment to the mullions and therefore is suitable for use in 'New Build' projects where the layout is not known at design stage, so internal acoustic upgrades to the mullion are not practical, 'Fit-Out' projects where internal lining to the mullion is not possible as the façade is already in place, and in addition, due to the clean simplicity of installation, it can also be fitted to singular offices where there are acoustic issues whilst fully fitted out without the need to empty the office of furniture etc, fitted very quickly during 'Out of Hours' without disruption to the occupants.

The Siderise MC System is 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.

The Siderise MC System is supplied in a set of 14 Main Parts per Mullion:

- 4 x Standard Retaining Strips.
- 2 x Standard Female Cover Plate.
- 2 x Standard Male Cover Plate (either Small or Large).

6 x Infill, cut to suit profile / mullion depth, either Acoustic Only (Foam/Barrier Composite) Fire & Acoustic (Mineral Wool/Barrier Composite).

1 x Roll Siderise Double Sided SA Tape to suit the Retaining Strips.

The Siderise MC System is usually available from stock for rapid delivery in both 'White RAL 9016' and 'Dark Grey RAL 7016' or can be supplied to any RAL Colour, subject to MOQ and Extended Delivery Period.



#### **Benefits**

- Excellent Acoustic Properties.
- Offers up to 2 Hours Fire Rating.
- Accommodates Façade Movement.
- Suit a wide range of mullion sizes as standard.
- Extensive colour range.
- Maintenance free.
- Very Simple to Install, with limited disruption.
- Simple solution to common issues.

# Product description

The Siderise MC System comprises:

#### **Standard Retaining Strips & SA Tape**

Supplied in 3m Lengths, 26mm wide, Dark Grey 7016 PPC, complete with retaining clips at 300mm centres, (see Fig 1) applied using the Siderise Double sided SA Tape for direct adhesion to the rear of the glass unit and partition edge, usually it is recommended that the retaining strip to the partition edge is also mechanically fixed with counter sunk screws, the holes in the retaining strip will need to be counter sunk on-site to ensure the screw heads remain flush to the retaining strip (see RH strip in Fig 1).

#### **Standard Female Cover Plate**

Supplied in 3m Lengths, one size only, (see Fig 2) usually available from stock for rapid delivery in both 'White RAL 9016' and 'Dark Grey RAL 7016'.

#### **Standard Male Cover Plate (either Small or Large)**

Supplied in 3m Lengths, in two sizes, 'Small' (see fig 3) to suit mullions 80mm – 135mm depth or 'Large' to suit mullions 136mm – 255mm depth, usually available from stock for rapid delivery in both 'White RAL 9016' and 'Dark Grey RAL 7016' in both sizes.







Fig 3



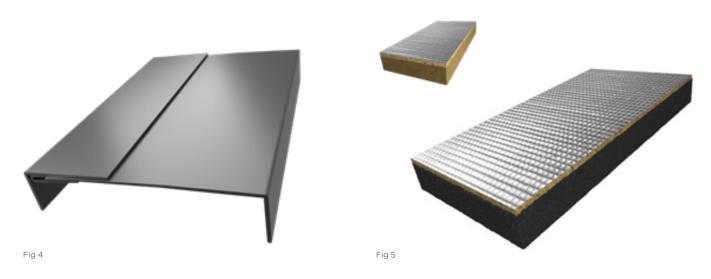
Fig 1

#### **Cover Plate**

The standard female cover plate and standard male cover plate are put together prior to installing in the system (see Fig 4).

#### Infill

The Infill is suppled cut to suit width of the profile / mullion depth, allowing for a tight fit between the cover assembly, the Acoustic Only option (see main image Fig 5) is a 30mm thick multi-layered acoustic foam and mass barrier composite, with a self-adhesive backing for direct application to the mullion, the Fire & Acoustic option (see insert in Fig 5) is also a 30mm thick composite, comprising of mineral wool and mass barrier composite, with a self-adhesive backing for direct application to the mullion.



# Acoustic Performance

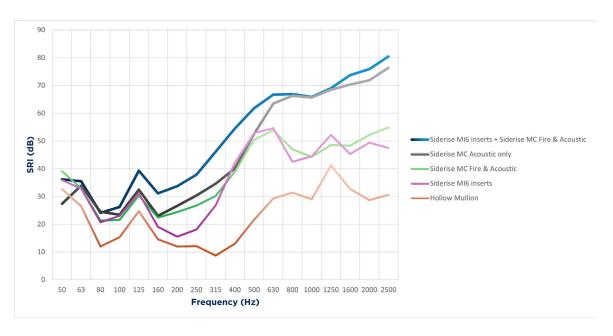
The Siderise MC System has been tested to EN ISO 10140-2:2021 & assessed to BS EN ISO 717-1:2020 Table 1 below shows the laboratory tested values.

Table 1

Product	R <sub>w</sub>	(C;Ctr)
205mm x 50mm Empty Mullion	24dB	(-2;-5)
Siderise MC - Acoustic Only	44dB	(-3;-8)
Siderise MC - Fire & Acoustic	43dB	(-2;-7)
Siderise MI6 Inserts - Inside Mullion	36dB	(-3;-8)
Siderise MC + Siderise MI6 Inserts	52dB	(-3;-9)



The octave graph shows the above results,  $1/3^{rd}$  Octave data is available on request.



#### Use in practice

When Siderise MC System is used in combination with a partition offering up to 50dB Rw performance, no measurable loss in total room-to-room separation is expected (0.44dB\*).

Even if the partition value increases to 56dB Rw, the overall performance is typically only reduced by 2dB\*, by comparison, for untreated mullions the reduction in performance would be over 17dB\* reduction (a 10dB reduction in performance would result in a 'Doubling' of 'Perceived Loudness'), therefore a significant improvement

The practical airborne sound separation achieved between adjoining areas is often limited by the weakest element(s).

## Environmental

The Siderise MC System is environmentally friendly.

- The Aluminium components are made from an average of 60% recycled content, 40% Primary Aluminium, 13% Recovered Post Industrial Scrap & 47% Recovered Post-Consumer Scrap and is also 100% recyclable.
- The Mass Barrier is made from an average of 68% recycled material fillers and is also recyclable.
- The Mineral Wool components, (if applicable), are made from an average of 40% recycled content and is also 100% recyclable.
- Siderise are ISO 14001:2015 registered (Intertek) for its Environmental Management System.

 $<sup>^*</sup>$ Based on Composite SRI Calculations for a 4m partition abutting a 150mm mullion, empty or using the Acoustic only option



## Fire Performance

#### **Fire Resistance**

The Siderise MC System has a Fire Rated option available upon request, which used a special low resin content mineral wool in lieu of the acoustic foam for the absorption / spacing layer and has been tested to the temperature and pressure conditions of BS EN 1363 Part 1: 2012, and the test principles of BS EN 1366 Part 4: 2006 and achieved a 120/120 rating, (EI).

From this test data the Acoustic + Fire Siderise MC System can offer the following fire resistance ratings: 120 minutes (E) Integrity and 120 minutes (I) Insulation for Mullions up to 205mm wide.

#### **Reaction to Fire Classification**

The Siderise MC System has not been classified to EN ISO 13501-1 in its final form due to the small sizes / surface area, however the outer cover plates are Polyester Powder Coated Aluminium, Aluminium is generally recognized as being rated non-combustible, A1 if uncoated and typically be of Limited Combustibility, A2 if an organic coating such as Polyester Powder Coating (PPC) is applied. The primary components in the system behind the cover plate assembly have been tested separately, the Mass Barrier achieved B,s2,d0 on its own, the Acoustic Foam backing layer achieved B,s2,d0 and the Mineral Wool achieved A1.

## Thermal Shock

With any material that abuts the glass, such as dummy mullions, plasterboard etc, consideration to the possibility of 'Thermal Fractures' or 'Thermal Shock' should be given, The Siderise MC System requires the steel retaining strip to be bonded to the glass with an SA tape, generally it is considered that if the glass is either Heat Strengthened or Toughened, issues are unlikely, however if in doubt it would be prudent to check with the glazing manufacturer for confirmation for your specific project.

## Maintenance

The Siderise MC System require no maintenance other than periodic cleaning by light vacuuming or wiping with a damp cloth.

 $<sup>^*</sup>$ Based on Composite SRI Calculations for a 4m partition abutting a 150mm mullion, empty or using the Acoustic only option



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#### **Additional options**

The following options are available:

• A full range of RAL Colours available.

## Further information

#### **Technical support**

For further information please contact our technical team at the address below.

#### **Additional information**

The following information is available upon request or via download from our website:

- 1/3<sup>rd</sup> octave Laboratory Test Data available on request.
- Fire Test Certificate available on request.
- Fixing Guidance Sheet.
- · Safety Data Sheets .

#### Available CPD's

Contact Siderise for further information on our CPDs:

- Façade Acoustics Architects & Façade Consultants.
- Interior Acoustics Architects & Contractors.
- Siderise MC Architects & Contractors.
- Siderise MC Acoustic Consultants only.
- Façade Acoustics Acoustic Consultants only.
- Interior Acoustics Acoustic Consultants only.

#### Sales & Technical

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