

FIRE SAFETY & NOISE CONTROL FOR FACADES

BY
YOUR
SIDE

INSULATION SPECIALISTS

With over 45 years' experience, Siderise passive fire and acoustic insulation systems provide high performance solutions to create beautiful, protected buildings without compromise.

Siderise's role throughout its contribution to building projects worldwide, places technical, accredited and third party-certified product performance at the very heart of its passive fire products and solutions.

Our responsibility to optimum safety in façade and curtain wall structures begins in the collaboration of building concept and design. We have the technical expertise and insight to understand what's required to build a safer building, and we will work with you to ensure that your projects are designed and built with integrity.

Seamlessly, from design concept through to site installation and whole-life performance, our technical data, product quality, and outstanding service support, ensures we have the ingenuity to be your project partner.

Our passive fire protection systems are industry leading and third party certified. The Siderise curtain walling firestop was the first to market internationally and our reactive solution for ventilated façades was the first within Europe.

Extensive experience in architectural acoustics further complements our range enabling us to offer complete solutions that encompass insulation, integrity in terms of fire and noise control.

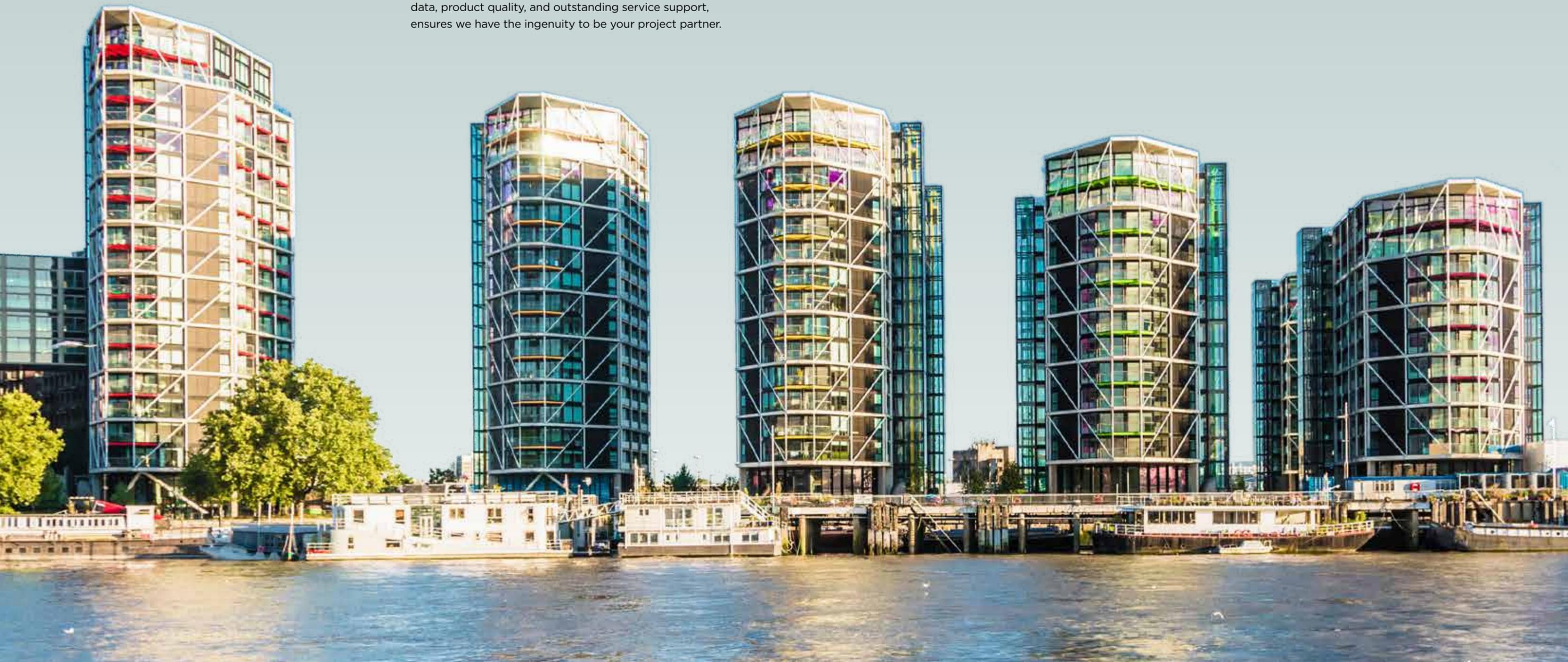
Our products are tested to the European standards which include; EN1364-4, EN1364-3, EN1366-4.

Also tested are 'Open State' Cavity Barriers to ASFP TGD19 (prEN 1364-6) for ventilated façades.

Our unique methods of manufacture afford the products a robustness and simplicity of design which answers all of the functional performance requirements in combination with a full consideration of practical installation.

Over recent years we have been actively supporting an International Development programme with a view to establishing our position as the supplier of choice to the worlds' premier architects and curtain walling contractors.

Our Façades team works closely with architects, façade contractors and installers to develop effective, engineered solutions to fire, thermal and acoustic problems and aim to ensure all of our valued customers benefit from design solutions that are robust and synonymous with good practice.



FIRE SAFETY FOR FAÇADES

For over 25 years SIDERISE has been the UK's No.1 firestop solution for the curtain walling industry.

Effective compartmentation measures within building design combined with professional installation can limit the spread of fire and importantly, noxious gases enabling evacuation of a building, saving lives and property as well as giving the fire services a safer environment in which to fight a fire.

The range of SIDERISE Perimeter Barrier systems provide an easy to install method of sealing the void formed between curtain walling and the structural frame.

They are suitable for use as both horizontal and vertical firestop systems.

Their inclusion effectively prevents the rapid spread of flames, gases, and smoke. Additionally they offer a qualified acoustic performance significantly enhancing room-to-room sound reduction.

Due to the unique patented method of manufacture these resilient products are able to accommodate normal façade deflection and site tolerances.

The SIDERISE product offer:

- Market-leading fire performance
- Qualified acoustics performance
- Unique construction provides unrivalled movement performance
- Third-party approved
- Simple and quick to install

PERIMETER BARRIERS AND FIRE STOPS FOR CURTAIN WALLING

Market leading solutions that meet fire and smoke stop, and sound barrier requirements in architectural cladding panel applications.

Siderise CW-FS perimeter barrier and fire stop systems offer an extensive range of solutions for fire stop, smoke stop and sound barrier requirements in all architectural cladding panel applications.

Based on the experience gained through being the premier supplier to the UK curtain walling market, the products represent an unrivalled combination of fully qualified performance, practical installation and service benefits.

The primary function of the CW system is to maintain continuity of fire resistance by sealing the void between the compartment floors or walls and the external curtain wall both horizontally and vertically.

Benefits

- Market leading fire resistance and smoke seal
- Suitable for horizontal and vertical application
- Patented product construction provides unique ability to accommodate facade movement
- Fully qualified acoustic performance
- Simple and quick to install

Third-Party Certification

- Third-party approved : 'Certifire CF563'
- Fully compliant to UK, EU & UAE regulations
- Tested to BS 476 and EN 1364-4 in accordance with ETAG 026 and ASFP Guidelines

CAVITY BARRIERS FOR VENTILATED CLADDING

Siderise RH 'Open State' horizontal and RV vertical cavity barrier range represent the default choice for market-leading, high-performance Rainscreen Cavity Barrier applications

Siderise RH 'Open State' horizontal cavity barriers have been specifically developed to meet the requirements for cavity barriers used in drained and ventilated façades. Their use ensures that the system will drain any moisture within the façade construction, whilst maintaining airflow and in the event of fire, provide an effective hot smoke and fire seal.

Siderise has developed two 'Open State' (open void) horizontal solutions: **RH25(G/S)** for air gaps up to 25mm and **RH50(G/S)** for air gaps up to 50mm. The product range is compliant to current market requirements and has been tested to ASFP Guidance: 'Open State' Cavity Barrier used in External Envelope or Fabric of Buildings, utilising principles of EN 1363-1. ASFP Technical Guidance Document – TGD 19 (July 2014 revised Nov 2017) refers.

Siderise RV vertical cavity barriers for rainscreen cladding are used to full fill the void between the external envelope and internal structure. By fully sealing the void, they assist ventilated façades to function by maintaining air-pressurisation compartmentation. Importantly, their unique stonewool lamella core construction enables the vertical barriers to accommodate the serviceability movement normally associated with rainscreen façades.

Intersections between horizontal and vertical cavity barriers are simply abutted.

Third-Party Certification

Siderise is the first manufacturer to achieve Third-Party Certification for Rainscreen Cavity Barriers.

For full details of Siderise certified Rainscreen Cavity Barriers, including the testing and scope of our Third-Party Certification, please refer to Warringtonfire ewc15 Certificate Number ME 5101.

This Certificate is available on www.siderise.com or by contacting our Technical Support department: technical.services@siderise.com



CAVITY BARRIERS & FIRE STOPS FOR MASONRY WALLS

We have has been developed a range of passive fire products specifically for masonry façades, covering all kinds of brick and stonework, including brick slips and render systems. This makes them suitable for a whole range of low to high rise projects..

Masonry is a popular façade choice all over the world. We not only rely on its inherent fire resistance, noise-reducing capabilities, and ability to withstand harsh weather conditions, but also enjoy the rich palette of tones and textures it offers. From the outside, masonry appears to be a straightforward construction. However, when we look behind the outer layer of bricks, they are more complex than they seem.

Potential Risks

To prevent moisture penetrating through to internal spaces, it is necessary to build masonry façades with an inner and outer leaf, creating a cavity in between. Whilst beneficial for preventing damp and creating space for insulation, these voids can cause serious issues in a fire. They can act as a chimney, allowing flames, heat, and smoke to spread into different building compartments.

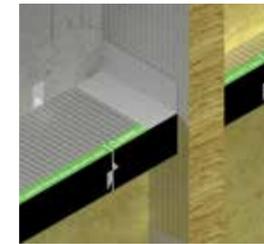


Within this cavity, there are several different materials whose interactions need to also be considered. This has become increasingly complex over time with the growing use of quick-to-construct steel framing systems (SFS), rather than traditional non-combustible blockwork for the inner leaf. There are also several design elements specific to masonry façades which, if not considered properly, could cause serious fire risk issues. This includes decorative offset bricks, creating an inconsistent cavity depth, or projecting balconies that have historically lacked a standard tested approach for firestopping.

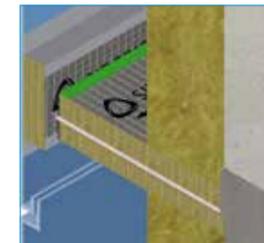
Expert solutions

Drawing on our vast experience and knowledge of façades, we have developed a suite of passive fire solutions for masonry constructions which address all these issues. Each of these products have been developed and thoroughly tested to match the ethos that surrounds modern masonry construction— from speed of build to providing a proven reliable and robust solution—for buildings made to last.

FIRE SAFETY SOLUTIONS



RV/RH Cavity Barriers for Ventilated Cladding Rainscreen - Vertical and Horizontal



OSCI Open State Cassette Insert



CW-FS Perimeter Barriers and Firestops for Curtain Walling



EW Cavity Barriers and Firestops for External Masonry Walls



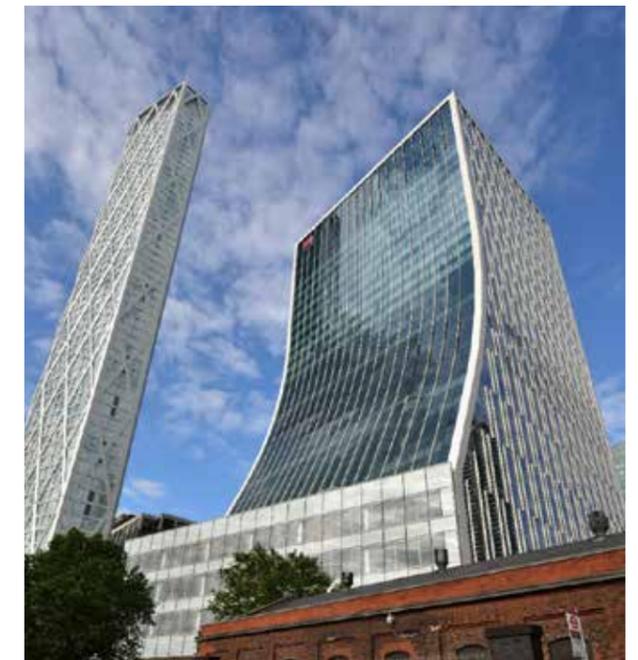
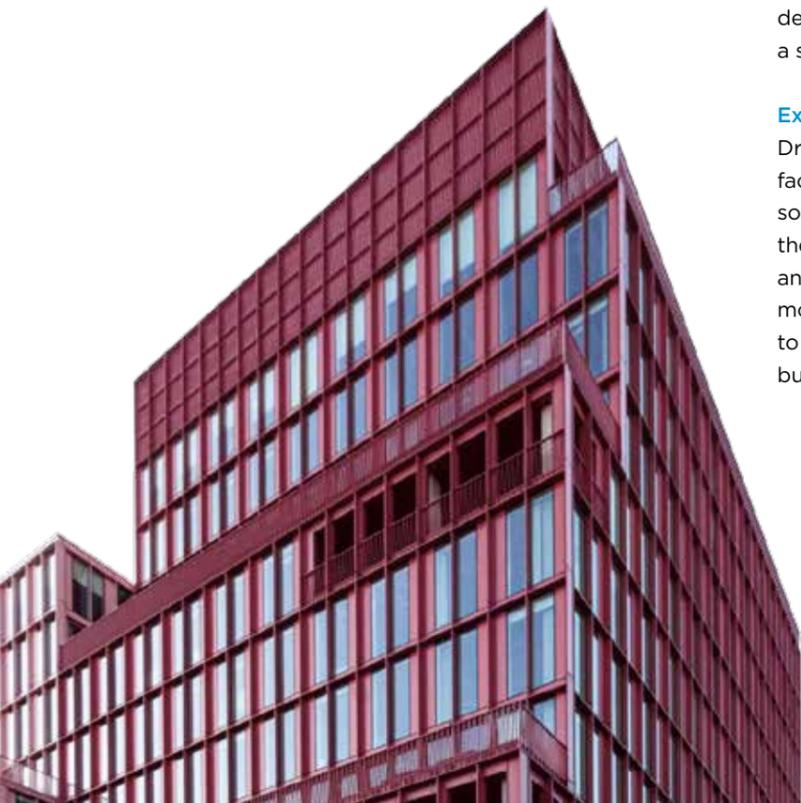
EWI Cavity Barriers and Firestops for External Masonry Walls



BB-CB Balcony Bracket - Cavity Barrier



Siderise Nexus Fusion for spandrel panels



NOISE CONTROL FOR FAÇADES

Acoustics in the built environment is a concern to society and a challenge to designers. We are experiencing increasing noise levels, occupant complaints and dissatisfied clients.

SIDERISE are leading manufacturers of acoustic materials for construction and other industries. Our range includes a choice of effective and proven sound reduction solutions that deal with all common sound path problems.

Additionally, we offer a vast range of sound absorption, isolation, anti-vibration and damping materials.

Our specialist design service, for standard and bespoke perimeter barrier slab-edge floor closures that combine fire resistance with the required sound insulation performance, is complemented by a range of acoustic barrier and insert systems to improve the sound performance within the curtain wall environment.

PERIMETER CLOSURES AND ACOUSTIC BARRIERS



For main sound transmission modes at floor/façade abutment our Façades team can undertake acoustic performance assessments and calculate the required SRI values for the firestop in order to meet the overall performance for a specific project. When required, additional acoustic treatments are available to ensure compliance.



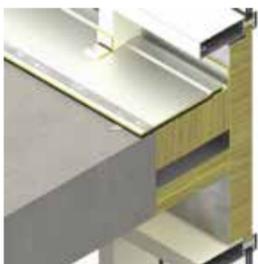
SIDERISE CW-FS perimeter barriers are market leading fire, smoke and acoustic seals for use within curtain walling. For guidance, tested performance for firestop only:

CW-FS60 = 23dB(Rw)
CW-FS120 = 25dB(Rw)



SIDERISE AB acoustic barrier overlay for use above the perimeter barrier firestop. Different grades are available to suit acoustics performance required. For guidance, tested performance for composite assembly:

CW-FS120 + AB5 = 33dB (Rw)
CW-FS120 + AB10 = 37dB (Rw)



SIDERISE CVB is a high mass closure normally incorporated beneath the perimeter barrier firestop and located to maximise the air gap and create a "twin mass" system. For guidance, tested performance for composite assembly:

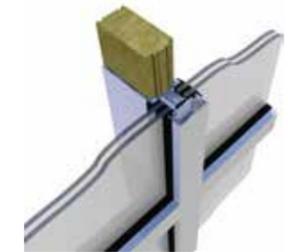
CW-FS120 + AB10 + 100mm airgap + CVB10 = 51dB (Rw)

"Our qualified in-house noise consultants can assist you to achieve the optimum acoustics performance."

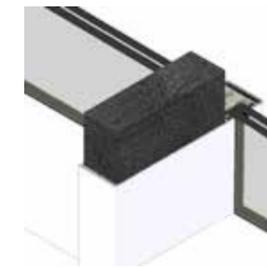
Mike Carrick AMIOA,
Technical Officer - Acoustics.

ACOUSTIC INSULATION INSERTS FOR FAÇADES

Siderise MI Mullion Inserts comprise a range of specialist acoustic insulation materials designed to reduce vertical and horizontal sound transmission in curtain wall buildings, improving the performance of hollow-framed façades and glazed areas.



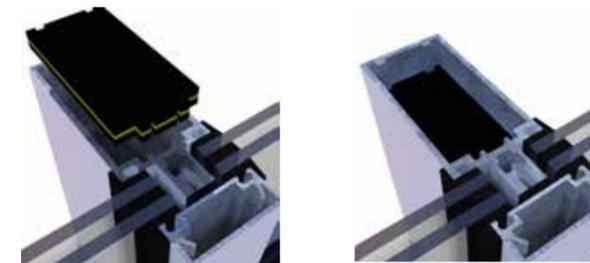
Siderise MI2 insert: Through frame - sound transmission treatment using shaped absorptive mineral wool inserts.



Siderise MI3 insert: Through frame - sound transmission treatment using shaped impregnated acoustic foam inserts.



Siderise MI6 Insert: Through frame - sound transmission treatment using shaped composite high mass layer and acoustic foam inserts.



Siderise MI11 Closure: Mullion closure - sound transmission treatment using dense resilient foam with central heavy membrane.

See separate data sheet for system choice guidance and acoustic performance.



VALUE PROPOSITION

We work with architects, contractors and specialist installers to develop effective, engineered solutions to fire, thermal and acoustic problems.



Siderise offers free technical advice to professionals and specialist fire contractors on the most appropriate method of fire stopping for a wide variety of construction applications.

Our specialist Façades team offer solutions for any fire or acoustic seal requirement within the external façade.

At the design stage we can complement standard details with consideration of wider performance demands including acoustics, thermal requirements and serviceability movement.

Upon receipt of project specific information we can provide practical design solutions without compromising cost or performance.

We support specifiers from initial enquiry and technical consultation to formal pre-qualification and project realisation.

Specifications are provided for standard products and applications and can be tailored to suit specific project performance requirements.



The fundamental ethos at Siderise is to provide cost-effective, high quality insulation products and to support customers and specifiers with the highest level of technical expertise.

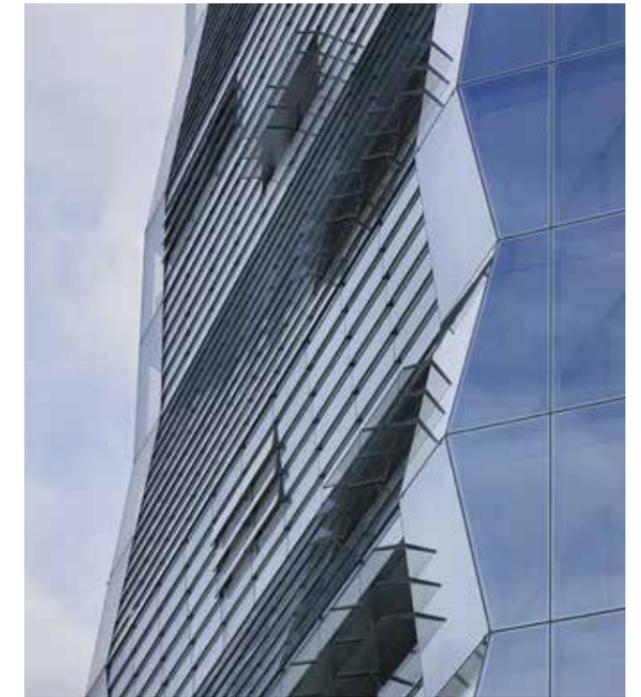
MARKET LEADING SUPPORT

Customer service is at the heart of everything we do, that's why we do all we can to make specifying and using Siderise products easy for you. For the architect, designer and specifier, selecting the right solutions for your project is one of the keys to its success. You can trust us to keep our promises and we can offer excellent lead-times thanks to our technologically advanced manufacturing plant and skilled workforce.

Technical support

Siderise provides the following technical support services:

- Offer project specific or application specific technical support at initial tender or full detailed design stage.
- Attend site meetings in a consultative capacity for either fire-stopping, acoustic design and/or thermal performance support.
- Consult with Building Control Officers, Architects, Main Contractors or Noise Consultants to provide support at any stage of the project.
- Project-specific design review, advice and details.
- Technical project proposals, project details and method statements.
- Assist with mark-up of project drawings to highlight typical locations of fire stops at visible lines of compartmentation and/or standard cavity barrier locations - with reference to standard details, building regulations and/or other code requirements.
- Provide 'Composite SRI' calculations and practical design advice to ensure optimum 'floor to floor' / 'room to room' sound attenuation performance.
- Train your staff or sub-contractors as competent installers.



- Introduce formally accredited, third party approved installers/contractors.
- Available for co-ordinated site visits with BCO or other stakeholders to inspect installations, putting the Client or Main Contractor at ease.
- Produce formal letters, confirming the details of site inspections and findings.

Continuous Professional Development

Our experts run a programme of CPD seminars and training in the areas of noise control and passive fire protection to keep you ahead of the game. The seminars, which can be online or presented by our technical experts, focus on current industry standards and legislation, look at the problems whilst considering real-life examples, and explore the solutions available for effective noise control and passive fire and smoke containment.

Why choose a Siderise CPD?

Our industry experience spans over 40 years and as designers and manufacturers of fire and acoustic solutions to the construction industry we have assisted many architectural practices with their designs. This expertise means that we can provide companies with all the knowledge they need on passive fire protection and noise control.

SIDERISE FAÇADES TEAM

Our teams are made up of individuals who have a wealth of experience and technical expertise in the areas of fire, thermal and acoustic insulation.

Our teams continue to build a formidable knowledge base within the construction industry. Our people are highly experienced, from sales through to operations.

We are committed to offering superior customer service whilst using our extensive knowledge to deliver both product innovation and development.

By providing free technical guidance we support our clients at every stage of the design process and are happy to assist clients in making the most appropriate product selection for any project.

All areas of our business comprise qualified people who have spent significant time in this industry and share a commitment to customer service. In short, we understand our customer's needs.

Supply worldwide

SIDERISE products are readily available worldwide via Approved Distributors, contact our Façades team for further information.

façades@siderise.com

INSPECTION APP

Siderise have developed a simple-to-use inspection application to enable the efficient recording and assessment of the installation of our products – and the issue of the recorded information into a clear and concise report.

The App provides a simple, easy-to-use process for recording the progress and quality of the installation of all of our standard firestop, cavity barrier and acoustic barrier systems. It allows the user to effectively inspect, record and seamlessly audit the quality of the installation work. Importantly, this process highlights any issues in need of a resolution.

Once in the field, the installer can use the App on a standard smartphone or tablet device to capture the relevant information for the installation.

App features

- Streamlined and contextual data entry using an iOS or Android device
- The App allows the user to easily update the data input fields, capture multiple photos for each area and/or element inspected and record as compliant or otherwise
- Photos taken using the device's built-in camera document the installation and are embedded/annotated within the report
- Immediate generation of a comprehensive report on the quality of installation of areas inspected as in accordance with recommendations or, importantly, identifies incorrect installation and areas requiring remedial treatment.



Contractor benefits

- Enhances site productivity and quality of workmanship while eliminating time consuming paper reporting
- Provides clear understanding of on-site conditions requiring remediation and highlights any issues in need of resolution
- Provides a method to simplify documentation
- Supports management
- Contributes towards O&M and contractual compliance
- Enhances quality – bringing peace of mind to you and your client

PROJECT PROFILE

Aloft, Palm Jumeirah

With stunning 360° views of the Persian Gulf, the Aloft Palm Jumeirah boasts a striking, colourful interior that stands out from other sleek and muted designs in Dubai.

When it came to fire safety measures on this landmark hotel, Siderise met the client's requirements by providing the proven CW-FS perimeter barrier as part of the façade system. While the primary function of the CW-FS is to protect against the spread of fire, it also works as an acoustic barrier which stops noise travelling room to room.



Baltimore Tower, London

In an iconic design by legendary US architectural firm Skidmore, Owings and Merrill, the Baltimore Tower's cantilevered and elliptical balconies have created an undulating 'twisting' form.

As part of the design of the 45-storey residential development, Siderise worked with facade contractor Alumet and provided a proven range of systems including their certified CW-FS Curtain Wall Fire Stop system along with the Siderise RH 'Open State' horizontal and RV vertical cavity barriers.

Siderise recommended the CW-FS 120 fire stop to seal the horizontal gap between the inside of the facade and the concrete slabs of this building. As well as being an effective seal against the passage of fire and smoke, the CW-FS 120 will also function as an effective acoustic barrier.



BY YOUR SIDE

Siderise Insulation – passive fire solutions for the building envelope

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