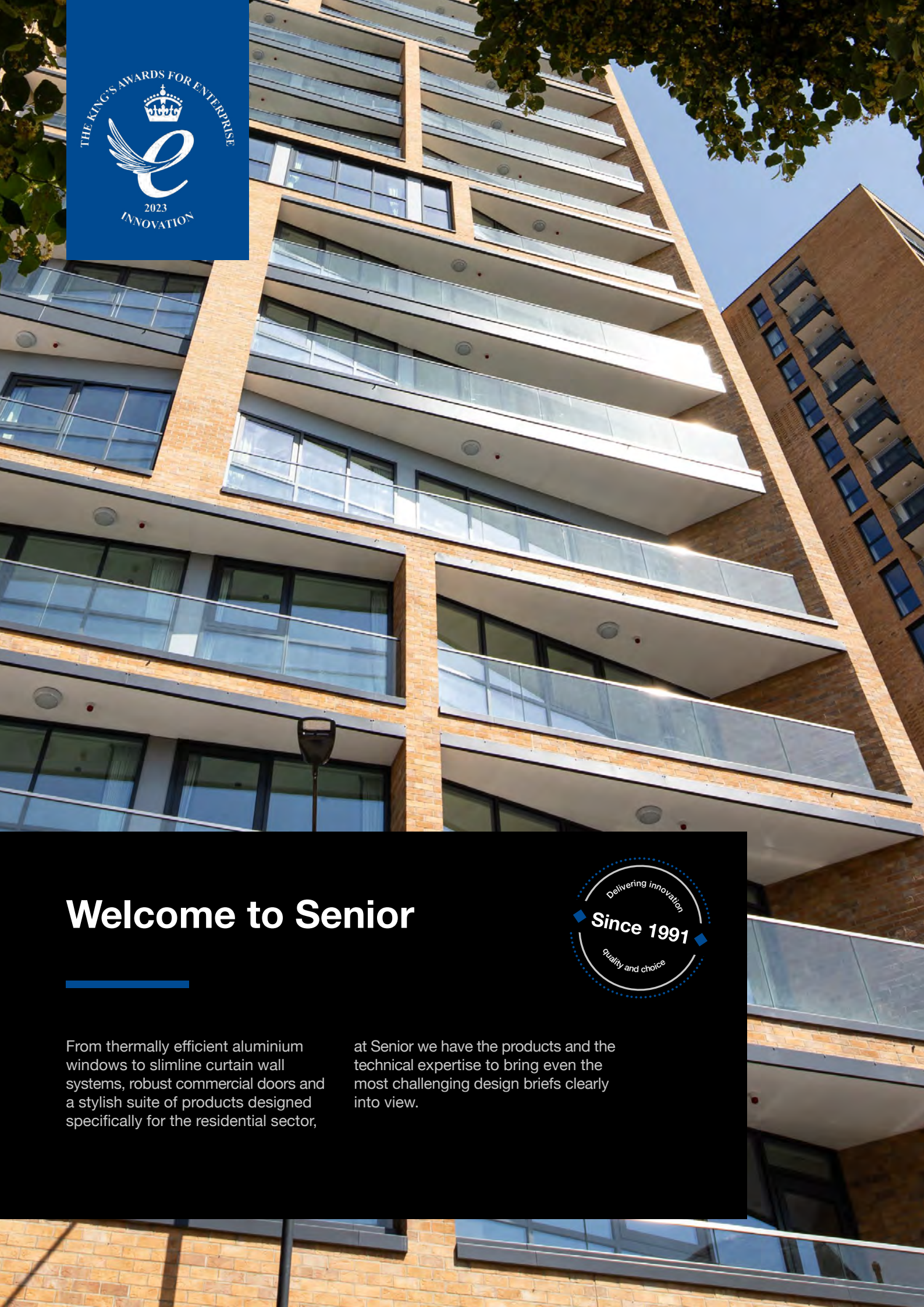
SENIOR ARCHITECTURAL SYSTEMS

Specification Guide

Product and technical information

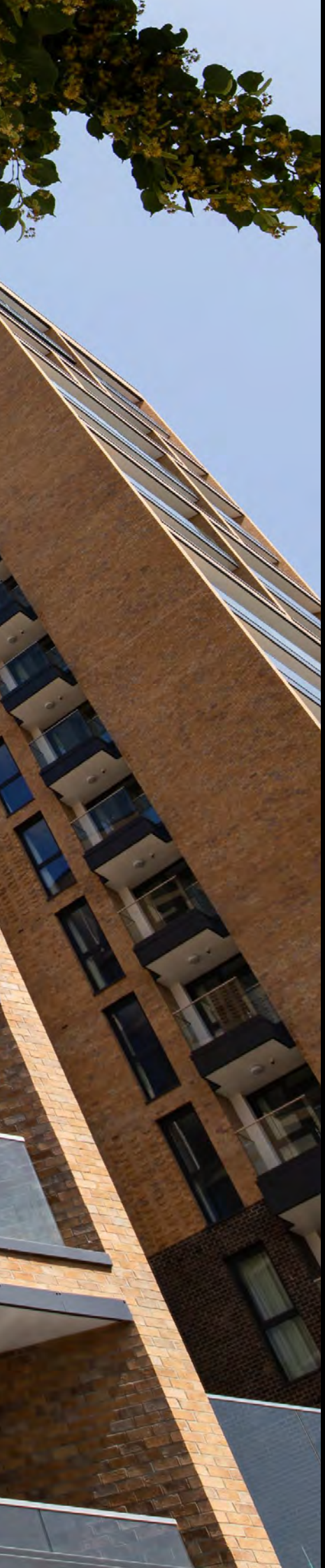
- Window Systems
- Swing Door Systems
- Sliding Door Systems
- Folding Sliding Door Systems
- Commercial Low-Rise Systems
- Curtain Wall Systems



Welcome to Senior

Delivering innovation
Since 1991
quality and choice

From thermally efficient aluminium windows to slimline curtain wall systems, robust commercial doors and a stylish suite of products designed specifically for the residential sector, at Senior we have the products and the technical expertise to bring even the most challenging design briefs clearly into view.



Why specify Senior

We've worked with some of the biggest names in construction on a variety of projects across the sectors including education, healthcare, stadia and leisure, commercial mixed-use developments and high-rise residential schemes. Our portfolio may be varied but one thing that remains consistent is the way we work and that's why we have established strong supply chain agreements and enjoy regular repeat business with clients. If you think Senior is just a manufacturer, it is time to think again.

Sustainable manufacturing

From offering **energy-efficient and fully recyclable** aluminium fenestration products, to implementing various **low carbon initiatives** throughout our manufacturing facility, we're committed to reducing carbon emissions both on and off site. We're also fully **accredited to BRE Global's BES 6001 standard and ISO 14001.**

Complete product range

All our products are **designed to perform** as well as they look, from the patented **thermal- efficiency** of our PURe® windows and doors, to our **slimline** curtain wall systems, and **robust** commercial door range. With solutions for both **commercial and residential** settings, we can offer the full package.

Expert design and technical support

Our **knowledgeable team** of architectural advisors are regionally based so they can work closely with you to help deliver **the most effective fenestration package** for your project. Through early engagement, we can **assist with everything** from product choice, technical design detailing and U-values, to help with carbon calculations and BREEAM ratings.

In-house powder coating facility

Our **state-of-the-art powder coating facility** not only significantly **reduces the amount of waste** product sent to landfill each year but also **reduces the risk of outsourcing** to another supplier. We can **manage the process completely in-house**, offering a **large choice of colours and protective finishes** for all our aluminium fenestration systems.

UK designed and manufactured

With two main manufacturing sites in **South Yorkshire**, including our new thermal improvement facility in **Rotherham**, and our distribution centre strategically located in Livingston, Scotland, we can supply aluminium fenestration solutions for projects nationwide. As the UK's largest privately owned aluminium fenestration systems house, we also have the autonomy to offer a **flexible and friendly service** that meets the individual needs of all our customers.

Secure and reliable supply chains

We believe in the power of supply chain collaboration which is why we're committed to maintaining positive relationships with our fabricator and installer base by offering **technical advice, product training and on-site support**. We have a number of **trusted and experienced partners** and together, have a **proven track record** of delivering projects across the sectors.

Keeping it green

Sustainability isn't just a key part of our product offering, it's a fundamental part of our company ethos.

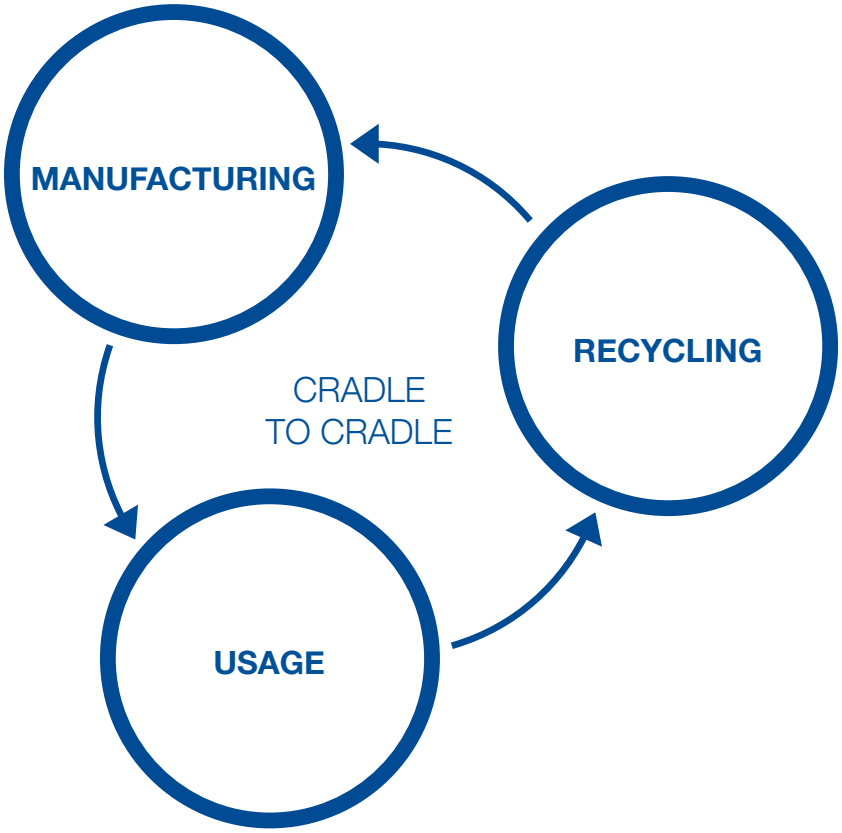
From our commitment to ensuring our manufacturing techniques are as carbon-neutral as possible to developing an energy-efficient product range that offers 'cradle-to cradle' recyclability, we strive to limit the environmental impact of all our business operations at every stage.

Our products maximise the unique properties of aluminium, which combines exceptional strength with the ability to be endlessly recycled with no detriment to its quality.

The durability of the material and closed-loop recycling process make aluminium fenestration systems a truly sustainable choice.

One of our flagship initiatives has been the investment in our in-house powder coating facility which is one of the most efficient of its kind and has helped significantly reduce the amount of waste generated. We also hold accreditation to the BRE Global's BES 6001 standard which confirms that all our products are manufactured using sustainably and ethically sourced recycled aluminium.

Closed loop recyclability



We're also reducing our carbon-footprint in the following ways:

- In-house PUR processing line for the sustainable manufacture of the PURe® system.
- Efficient grey-water recovery system in our factory recycles water used in the manufacturing process.
- A Biomass boiler heats our warehouse and is fuelled by waste timber from wooden packaging.
- We've invested in a five-star eco delivery fleet and on-site electric car charging points for staff and visitors.

Built around you

British Assessment Bureau
ISO 9001 ISO 14001
ISO 45001
UKAS MANAGEMENT SYSTEMS
8289

RIBA · CPD PROVIDERS NETWORK ·

BRE GLOBAL CERTIFICATION
UKAS MANAGEMENT SYSTEMS
007

BES 6001: Issue 3.1
Cert/Ref No. RS0054

Window General Performance
Enhanced Security Window
Enhanced Security Door
bmtrada
Q-MARK CERTIFICATION

CENTRE FOR WINDOW AND CLADDING TECHNOLOGY

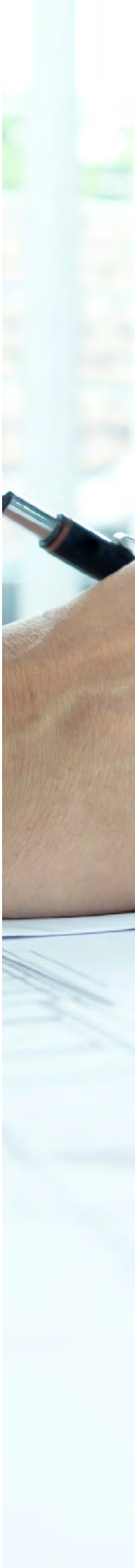
BES 6001
Responsible Sourcing

CAB
Council for Aluminium in Building Member

Secured by Design
SBD
Official Police Security Initiative

ENHANCED SECURITY PERFORMANCE
PAS 24
PAS 24:2016

NBS Source
PARTNER



Your trusted partner

Innovative products speak for themselves but we believe the specification process should be a conversation and through early engagement, we can bring valuable solutions to the table. From help with product choice and thermal calculations right through to quality control and guidance during the fabrication and installation process, we have the in-house expertise and resources to support you every step of the way.

Product specification

Window Systems

Our range of aluminium window systems combine attractive slim sightlines with a wide range of performance benefits. From the low-maintenance appeal of SPW600 to the design flexibility of Ali VU and the U-values achieved by our thermally-enhanced patented PURe® system, our stylish aluminium windows have been developed to perfectly suit your needs, and your building design.

Materials

Extruded aluminium is generally Aluminium Alloy 6060.T6/T66, 6063.T6/T66, 6082.T6 to BS EN 755-9 and EN 12020 - 2.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25.

Gaskets are manufactured in accordance with BS ISO 3302 - 1.

For project specific assistance, please contact our specification team.

Environmental

Accredited to BRE Global's BES 6001 standard, we're committed to the responsible and sustainable sourcing of all our aluminium extrusions. Senior Architectural Systems is also fully compliant with BS EN ISO 9001 and BS EN ISO 14001.

Manufactured from recycled aluminium, all our aluminium systems offer closed loop recycling and can be endlessly reused with no detriment to quality.

Finishes

Our state-of-the-art powder coating facility is one of the most advanced, and environmentally-friendly, in the UK. As well as providing standard RAL colours, our colour matching service also enables bespoke shades to be created which can then be specified as single or dual colours.

Specifiers can choose from standard matt, satin or gloss finishes or for a traditional metallic look, anodised and mill finishes are also available.

Window Options

PURe®
Pages 12 - 21

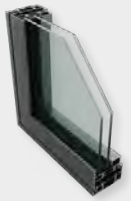
Patented low U-value aluminium window for enhanced thermal performance.

SPW600e
Pages 22 - 27

A robust aluminium window system available in a choice of styles and colours.

SPW300
Pages 28 - 29

Slimline polyamide aluminium window system offering design flexibility.

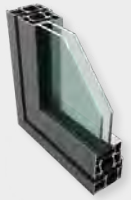


Ali VU
Pages 30 - 31

A super slimline aluminium window with a polyamide thermal break giving impressive thermal-efficiency.

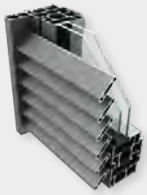
SSG
Pages 32 - 33

Secondary aluminium glazing system for improved thermal and acoustic performance.



SPW600 AOV
Pages 34 - 35

A thermally-efficient aluminium casement window with automatic opening vents for improved ventilation.



Lourve Guard
Pages 36 - 37

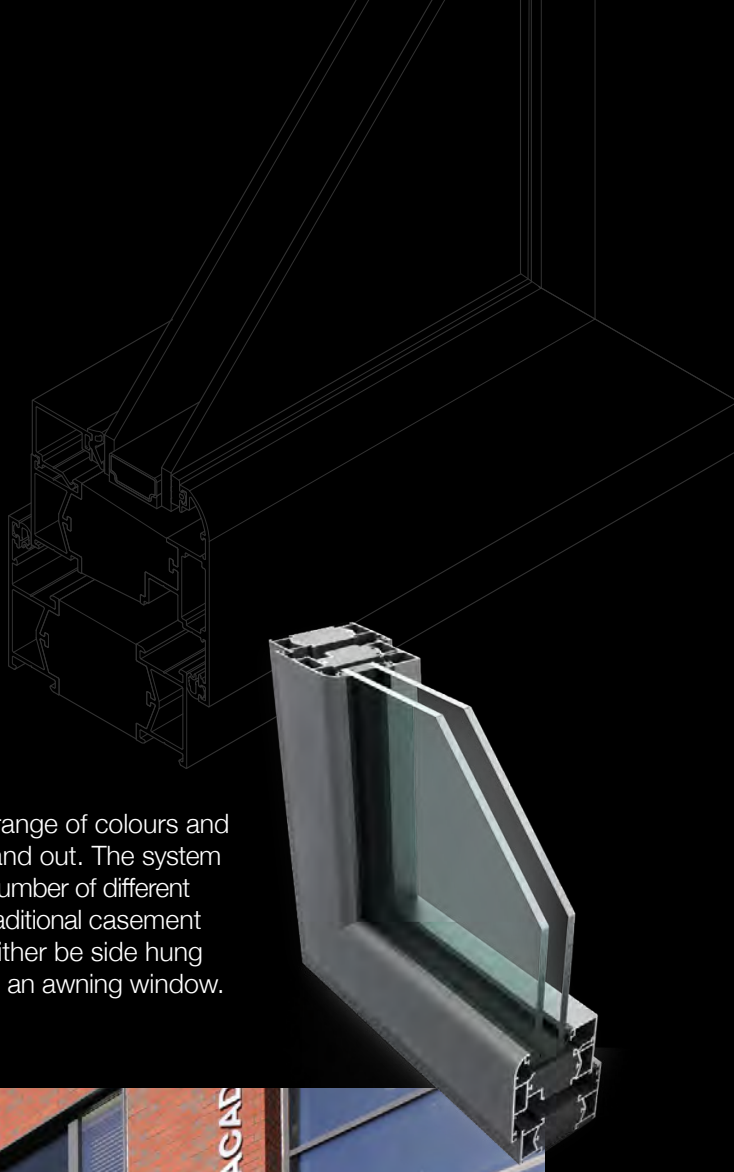
Stylish aluminium louvre for use with our inward opening SPW300, SPW600 and PURe® window systems.

SFF
Pages 38 - 39

Flush aluminium glazing solution with no visible framework on the external façade.

Window systems

PURe®
Open Out Casement



Our market-leading PURe® window system uses a patented enhanced thermal barrier manufactured from expanded polyurethane (PUR) allowing ultra low U-values to be achieved. Offering great design flexibility, the system is available pre-finished in an almost unlimited range of colours and finishes both inside and out. The system is also available in a number of different styles including the traditional casement window which can either be side hung or top hung to create an awning window.

Brixton Hill Campus
Lambeth

Design features:

- Slimline aluminium frame with enhanced PUR thermal barrier
- Traditional style casement window
- Can be side hung or top hung to create an awning window

Options:

- Able to receive double or triple glazing up to 50mm for maximum thermal and acoustic performance
- U-values as low as 0.73 W/m²K when calculated as a commercial CEN standard window

Technical

Typical sizes	Top hung	1500mm x 1500mm
	Side hung	1000mm x 1500mm
Weather rating *BS6375 part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Radius vent	28mm - 48mm
	Flat faced vent	28mm - 50mm
Testing	Tested to	PAS 24, BS6375 - 2, BS6375 - 3
Average U-values	Residential CEN standard: 1230mm x 1480mm (+25%)	
	Double glazed unit	1.2 W/m²K
	Triple glazed unit	0.76 W/m²K
	Commercial CEN standard: 1230mm x 1480mm (+25%)	
	Double glazed unit	1.1 W/m²K
	Triple glazed unit	0.73 W/m²K

Thermal performance:

0.73 W/m²K

Contact us for BREEAM® rating information.

Safety and security:

PAS 24 – Enhanced Security Performance – PAS 24:2016

Secured by Design – SBD – Police Preferred Specification

Acoustic performance:

42dB reduction is achievable

Contact us to discuss your specific project requirements.

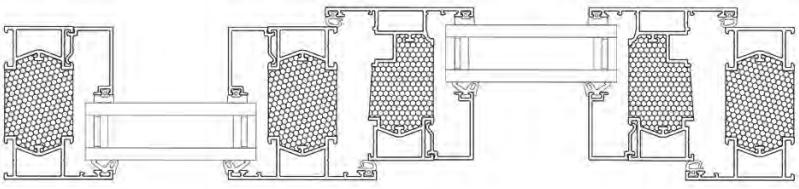
Construction:

PURe® is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks.

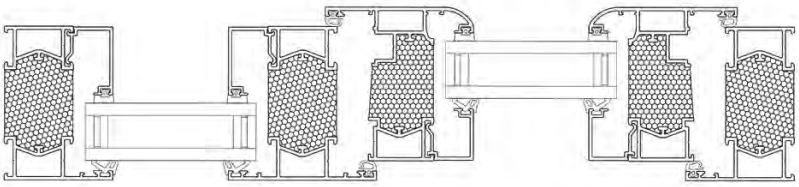
A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted directly into the outer frames using friction stays.

Technical drawings:

Flat faced vent



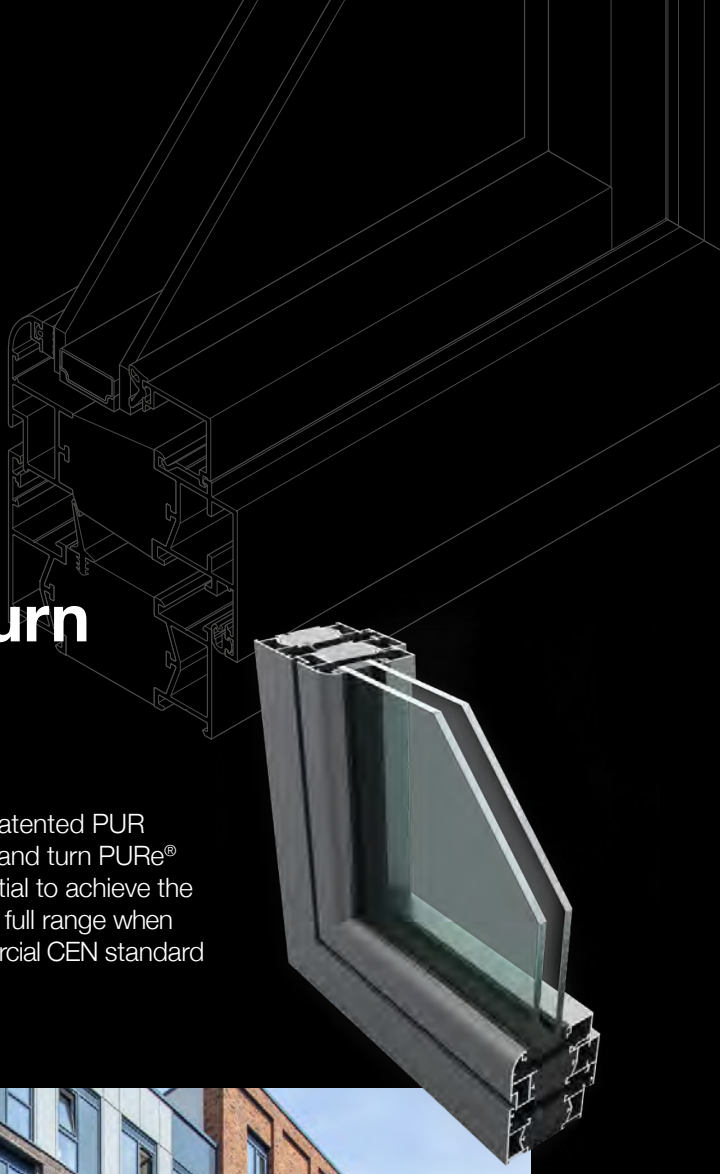
Radius vent



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

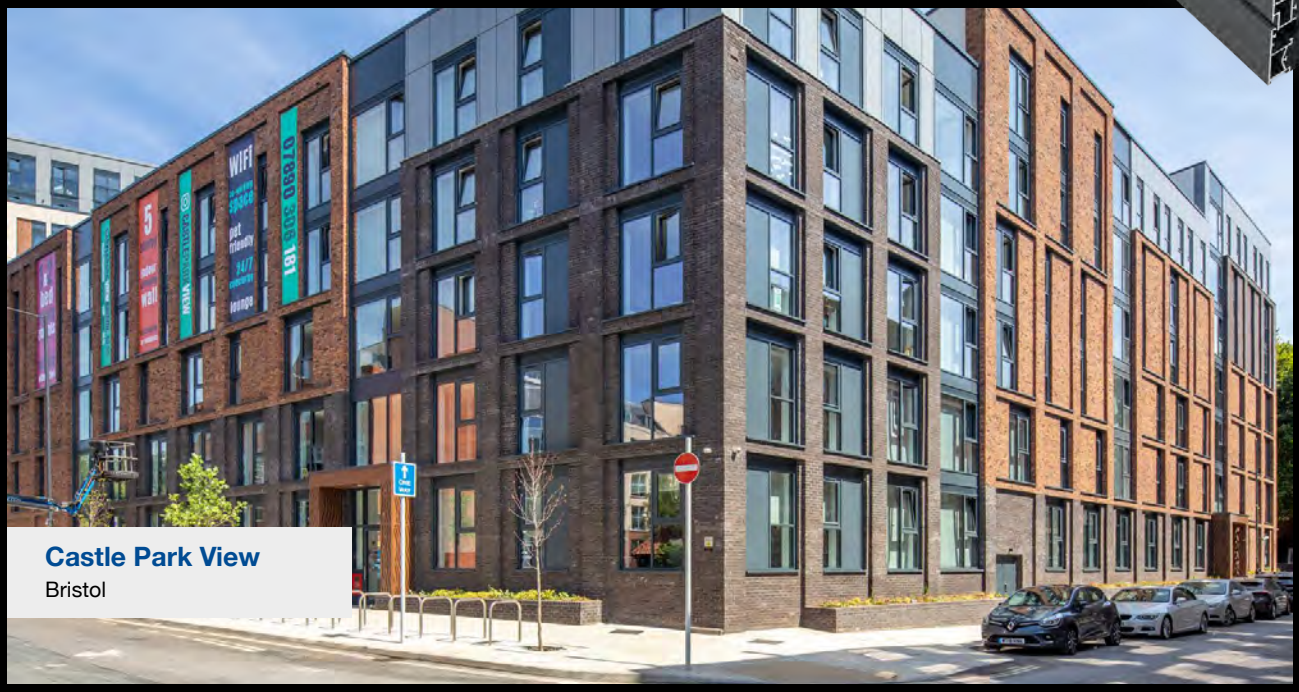
Window systems

PURe®
Inward Opening Tilt & Turn



Ideally suited to high-rise and education schemes where there is a need to combine adequate ventilation with safety from falls, our PURe® tilt and turn window offers flexibility, security and enhanced thermal performance.

Benefitting from our patented PUR thermal barrier, the tilt and turn PURe® window has the potential to achieve the lowest U-values of the full range when calculated as a commercial CEN standard window.



Castle Park View
Bristol

Design features:

- Slimline aluminium frame with enhanced PUR thermal barrier
- Contemporary style and dual functionality
- Can be tilted open inwards from the top of the sash for ventilation or opened inwards from the side
- Designed to provide safe ventilation and ease of cleaning

Options:

- Able to receive double or triple glazing up to 50mm for maximum thermal and acoustic performance
- U-values as low as 0.71 W/m²K when calculated as a commercial CEN standard window

Technical

Typical sizes	Open in	1500mm x 2400mm
Weather rating *BS6375 part 1*	Air Permeability	600 Pa
	Water Tightness	600 pa
	Wind Resistance	2400 Pa
Glazing	Radius vent	28mm - 48mm
	Flat faced vent	28mm - 50mm
Testing	Tested to	PAS 24, BS6375 - 2, BS6375 - 3
Average U-values	Residential CEN standard: 1230mm x 1480mm (+25%)	
	28mm Double Glazed Unit	1.2 W/m²K
	48mm Triple Glazed Unit	0.75 W/m²K
	Commercial CEN standard: 1230mm x 1480mm (+25%)	
	28mm Double Glazed Unit	1.1 W/m²K
	48mm Triple Glazed Unit	0.71 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

Secured by Design

Police Preferred Specification

Acoustic performance:

43dB reduction is achievable

Contact us to discuss your specific project requirements.

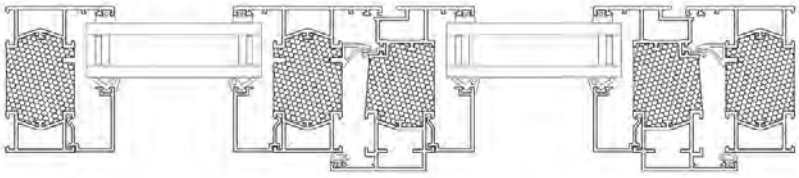
Construction:

PURe® is constructed using mitred corners, joined with crimped cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks.

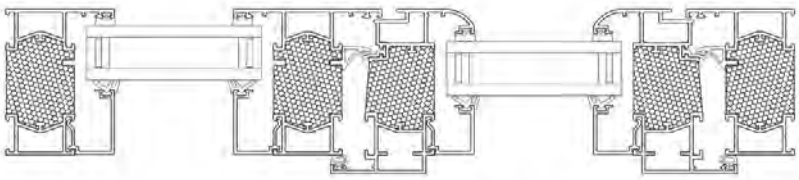
A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted directly into the outer frames using butt hinges or tilt/turn mechanism.

Technical drawings:

Flat faced vent



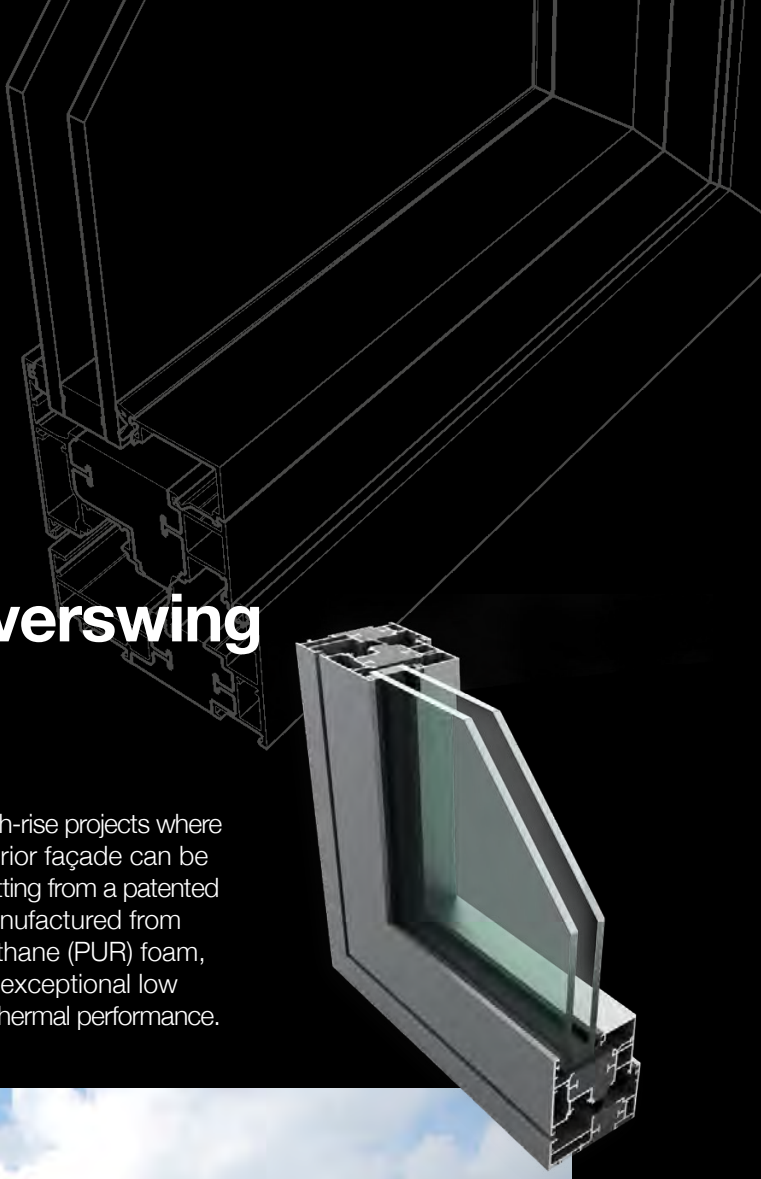
Radius vent



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Window systems

PURe®
Open Out Reversible Overswing



Our PURe® overswing aluminium window is fully reversible to enable cleaning to be completed from the inside of the building. Safe, secure and benefitting from the inherent strength and durability of its slim aluminium frame, this type of window can help to reduce maintenance costs and is ideally suited for high-rise projects where access to the exterior façade can be difficult. Also benefitting from a patented thermal barrier manufactured from expanded polyurethane (PUR) foam, the window offers exceptional low U-values and high thermal performance.

Abbey Grange Academy
Leeds

Design features:

- Slimline aluminium frame with enhanced PUR thermal barrier
- Modern style top hung window with dual functionality
- Can be opened for ventilation or fully reversed to allow the outside of the window to be cleaned from the inside

Options:

- Able to receive double or triple glazing up to 57mm for maximum thermal and acoustic performance
- U-values as low as 0.94 W/m²K when calculated as a commercial CEN standard window

Technical

Typical sizes	Top hung	1500mm x 1738mm
Weather rating *BS6375 part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Radius vent	28mm - 48mm
	Flat faced vent	28mm - 57mm
Testing	Tested to	PAS 24, BS6375 - 2, BS6375 - 3
Average U-values	Residential CEN standard: 1230mm x 1480mm	
	Double glazed unit	1.4 W/m²K
	Triple glazed unit	1.0 W/m²K
	Commercial CEN standard: 1230mm x 1480mm	
	Double glazed unit	1.3 W/m²K
	Triple glazed unit	0.94 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

Secured by Design

Police Preferred Specification

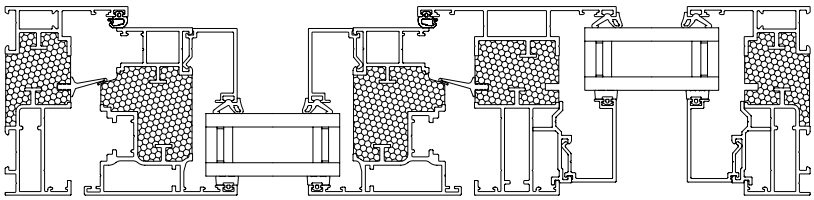
Construction:

PURe® is constructed using mitred corners, joined with crimped cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks.

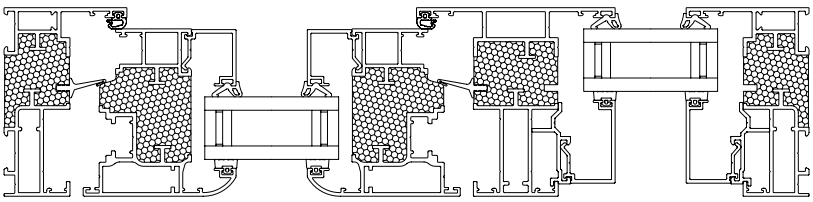
A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted directly into the outer frames using butt hinges or tilt/turn mechanism.

Technical drawings:

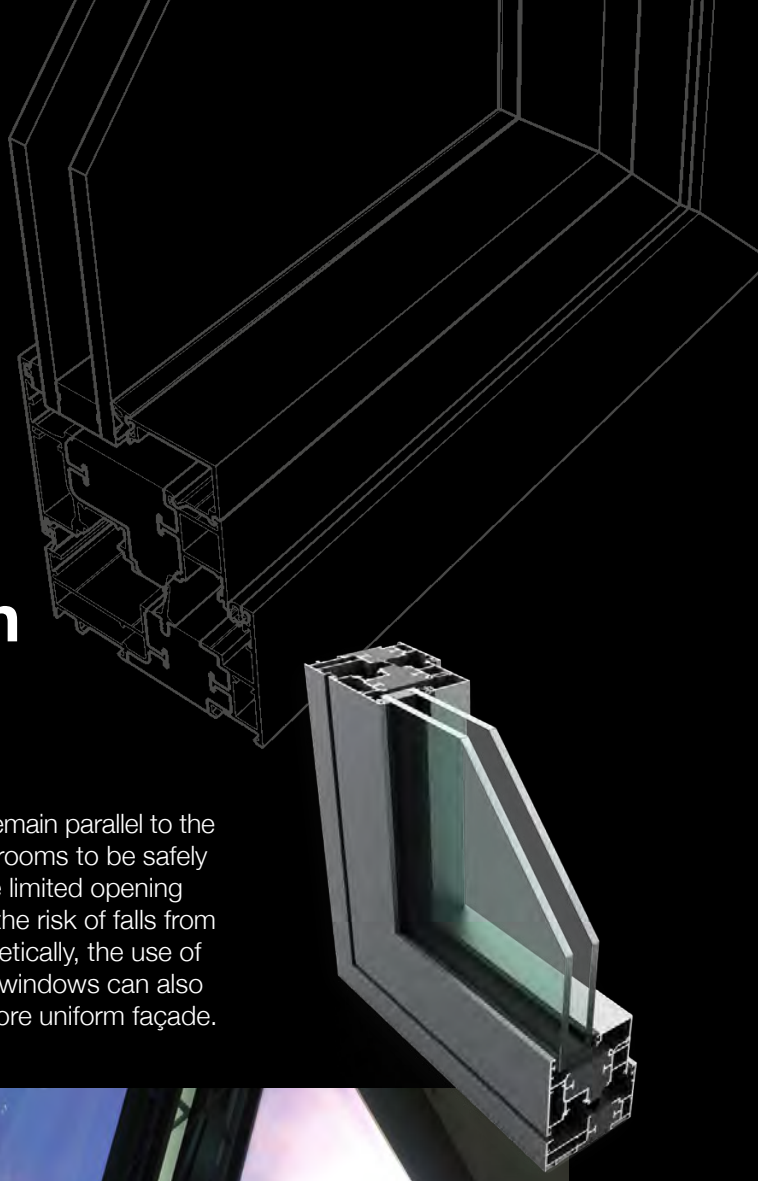
Flat faced vent



Radius vent



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.



Window systems

PURe®
Open Out Parallel Push

Designed to offer balanced air flow and ventilation with maximum safety, the restricted opening of the PURe® parallel push aluminium windows make them ideally suited to a wide range of sectors. With hinges on all sides of the frame, the window can be easily pushed open and yet will remain parallel to the wall. This enables rooms to be safely ventilated, with the limited opening helping to reduce the risk of falls from the window. Aesthetically, the use of push parallel style windows can also help to create a more uniform façade.

Abbey Grange Academy
Leeds

Design features:

- Contemporary style window
- Fully compatible with our curtain wall systems
- Hinged on all sides to provide safe ventilation with restricted opening
- Ideally suited for healthcare, schools and high-rise buildings

Options:

- Fully cycle tested and with PAS 24 Enhanced Security
- Able to receive double or triple glazing up to 57mm for maximum thermal and acoustic performance
- U-values as low as 0.9 W/m²K when calculated as a commercial CEN standard window

Technical

Typical sizes	PURe® parallel	1500mm x 2400mm
Weather rating *BS6375 part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Radius vent	28mm - 48mm
	Flat faced vent	28mm - 57mm
Testing	Tested to	PAS 24, BS6375 - 2, BS6375 - 3
Average U-values	Residential CEN standard: 1230mm x 1480mm	
	Double Glazed Unit	1.3 W/m²K
	Triple Glazed Unit	0.97 W/m²K
	Commercial CEN standard: 1230mm x 1480mm	
	Double Glazed Unit	1.3 W/m²K
	Triple Glazed Unit	0.9 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

PAS 24 — Enhanced Security Performance — PAS 24:2016

Secured by Design — SBD — Police Preferred Specification

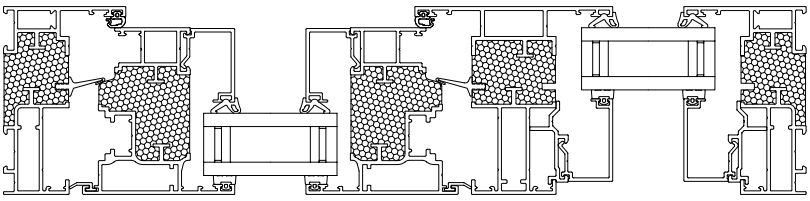
Construction:

PURe® is constructed using mitred corners, joined with crimped cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks.

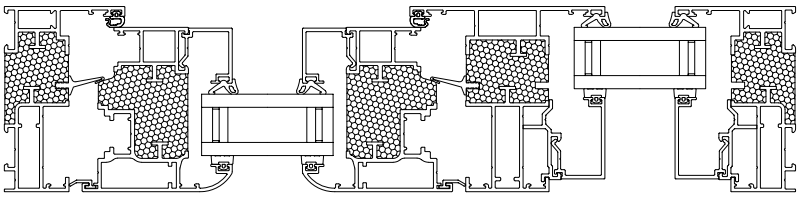
A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted directly into the outer frames using butt hinges or tilt/turn mechanism.

Technical drawings:

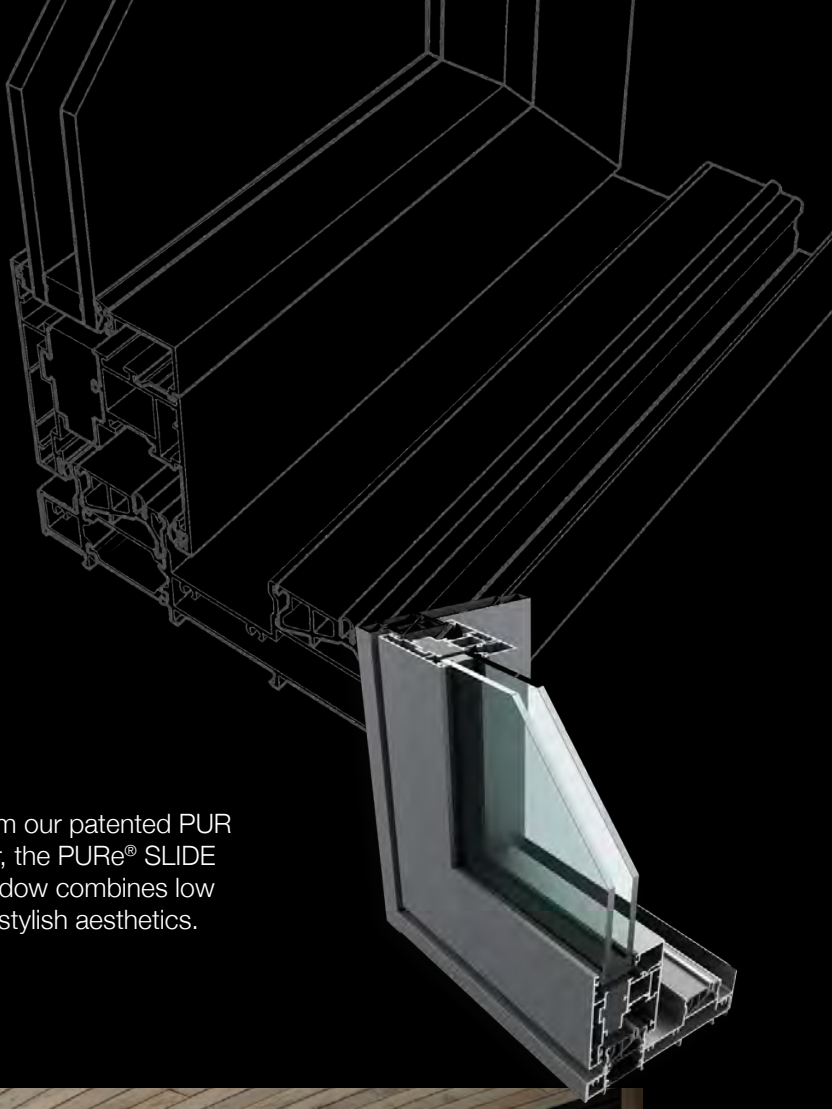
Flat faced vent



Radius vent



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.



Window systems

PURe® SLIDE Window

Our PURe® SLIDE aluminium window has been developed to be the perfect partner to our aluminium sliding door range. Featuring attractive slim sightlines and easy operation, this sliding window is ideally suited for contemporary building designs.

Benefitting from our patented PUR thermal barrier, the PURe® SLIDE aluminium window combines low U-values with stylish aesthetics.

Wendover Wood Forestry Centre
Aylesbury

Design features:

- Stylish sliding window with slim sightline
- Enhanced PUR thermal barrier
- Complements the PURe® SLIDE aluminium door
- Combines long life and low maintenance, patented high insulation PUR foam thermal barrier providing low U-values

Options:

- Able to receive double or triple glazing up to 52mm for maximum thermal and acoustic performance
- Potential to achieve ultra low U-Values when calculated as a commercial CEN standard window

Technical

Typical sizes	Size ranges may vary. *Speak to us to discuss your project specifics.*	
Weather rating *BS6375 part 1*	Air permeability	600 Pa
	Water tightness	300 Pa
	Wind resistance	1200 Pa
Glazing	Thickness	28mm - 52mm
Testing	Tested to	BS6375 - 2, BS6375 - 3
Average U-values	Differing window + glass configurations produce differing U-values *Please consult our technical department.*	

Thermal performance:

Contact us for BREEAM® rating information.

Separate figures are available for Thermal U-values depending on configuration and glazing used.

Safety and security:

Secured by Design

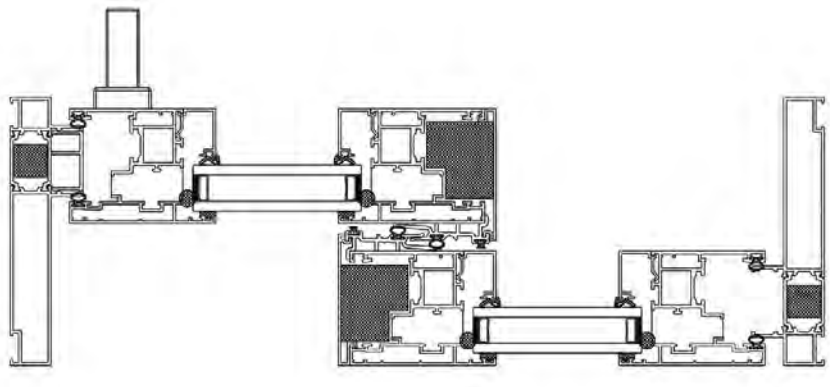
Police Preferred Specification

Construction:

PURe® is constructed using mitred corners, joined with crimped cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks.

A proprietary sealant is used on all metal joints in line with good practice.

Technical drawings:



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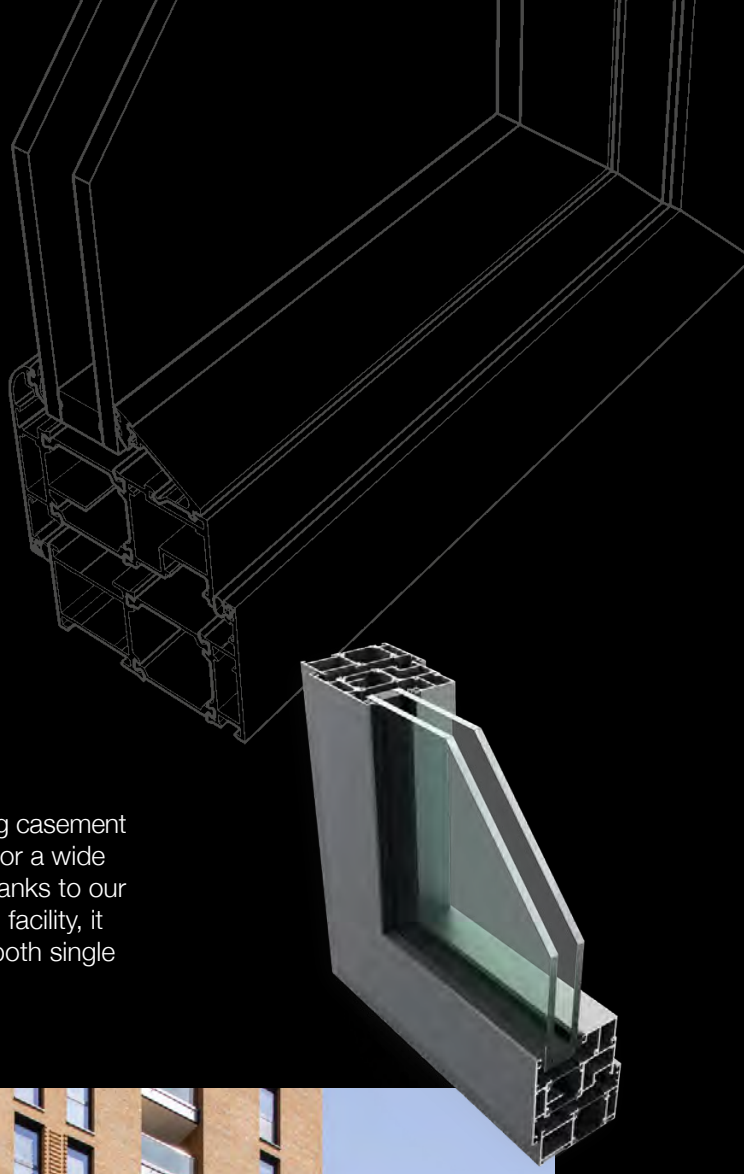


Window systems

SPW600e Open Out Casement

One of our most established and trusted systems, our versatile SPW600e aluminium window is a popular choice for a wide variety of projects. Robust and thermally-efficient, the system is available as a traditional style top hung casement window, which is suited for a wide range of applications. Thanks to our in-house powder-coating facility, it can also be specified in both single and dual colour options.

West One
Wembley

Design features:

- Robust aluminium frame with enhanced 75mm polyamide thermal barrier
- Traditional style casement window
- Can be side hung or top hung to create an awning window

Options:

- Available in a both single and dual colour options
- Able to receive glass and infill panels from 28 to 56mm thick depending on configuration
- Thermally enhanced to achieve BFRC ratings

Technical

Typical sizes	Top hung	1500mm x 1500mm
	Side hung	1000mm x1500mm
Weather rating *BS6375 Part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Radius vent	28mm - 50mm
	Flat faced vent	28mm - 56mm
Testing	Tested to	BS6375 - 2, BS6375 - 3
Average U-values	Residential CEN standard: 1230mm x 1480mm	
	Double glazed unit	1.5 W/m²K
	Triple glazed unit	1.2 W/m²K
	Commercial CEN standard: 1230mm x 1480mm	
	Double glazed unit	1.5 W/m²K
	Triple glazed unit	1.1 W/m²K

Thermal performance:

1.1 W/m²K

Contact us for BREEAM® rating information.

Safety and security:

PAS 24 — Enhanced Security Performance — PAS 24:2016

Secured by Design

Police Preferred Specification

Acoustic performance:

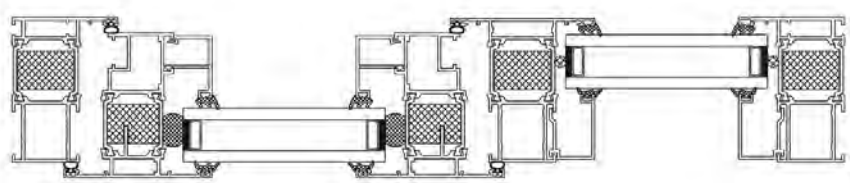
47dB reduction is achievable

Contact us to discuss your specific project requirements.

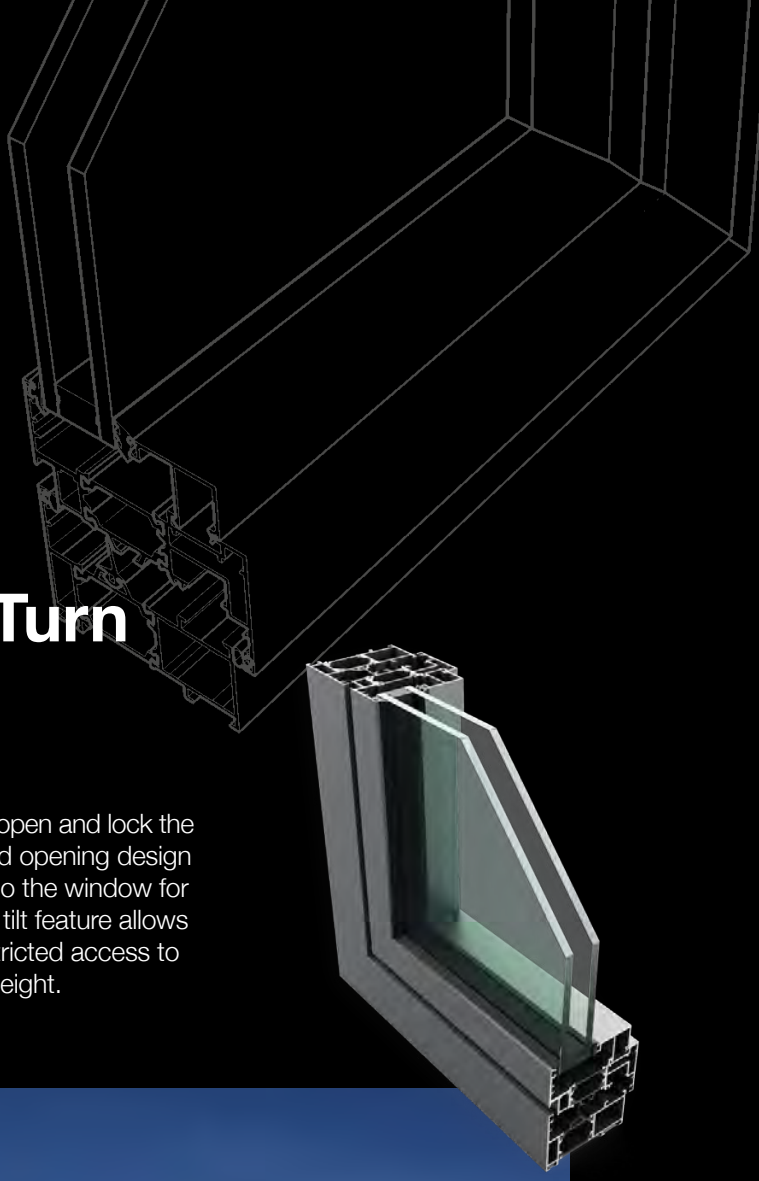
Construction:

Both SPW600 and SPW600e are constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks. A proprietary sealant is used on all metal joints in line with good practice.

Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.



Window systems

SPW600e
Inward Opening Tilt & Turn

Our SPW600e tilt and turn window offers a practical solution for controlled ventilation. It can be tilted open inwards from the top of the sash for ventilation, or the turn function can be used to open the window inwards from the side. The same handle is used to tilt, turn, open and lock the window. The inward opening design gives safe access to the window for cleaning, whist the tilt feature allows ventilation with restricted access to prevent falls from height.

Brae House Student Accommodation
Edinburgh

Design features:

- Robust aluminium frame with enhanced 75mm polyamide thermal barrier
- Contemporary style and dual functionality
- Can be tilted open inwards from the top of the sash for ventilation or opened inwards from the side
- Designed to provide safe ventilation and ease of cleaning

Options:

- Available in a both single and dual colour options
- Able to receive glass and infill panels from 28 to 56mm thick depending on configuration
- Thermally enhanced to achieve BFRC ratings

Technical

Typical sizes	Tilt/Turn	1500mm x 2400mm
Weather rating *BS6375 part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Thickness	28mm - 56mm
Testing	Tested to	BS6375 - 2 , BS6375 - 3
Average U-values	Residential CEN standard: 1230mm x 1480mm	
	Double glazed Unit	1.5/m²K
	Triple glazed Unit	1.1/m²K
	Commercial CEN standard: 1230mm x 1480mm	
	Double glazed Unit	1.5/m²K
	Triple glazed Unit	1.1/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

Secured by Design

Police Preferred Specification

Acoustic performance:

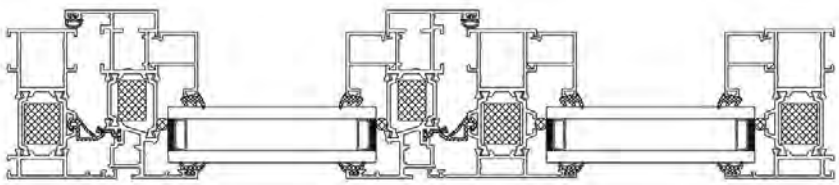
47dB reduction is achievable

Contact us to discuss your specific project requirements.

Construction:

Both SPW600 and SPW600e are constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks. A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted into outer frames using butt hinges or tilt and turn mechanism.

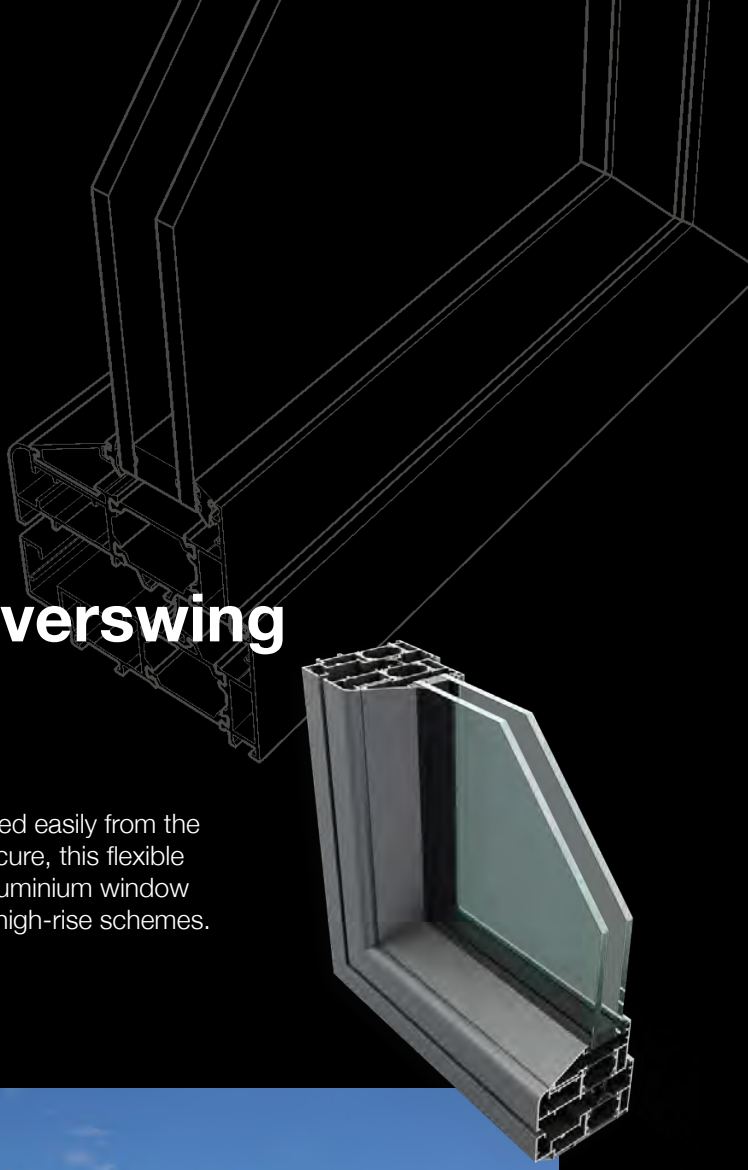
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Window systems

SPW600e
Open Out Reversible Overswing



The SPW600e overswing has been designed with functionality in mind. This top hung window can initially open for ventilation and when needed, can fully reversed to allow the outside of the window to be cleaned easily from the inside. Safe and secure, this flexible thermally-broken aluminium window is ideally suited for high-rise schemes.

Tower Wharf
Chester

Design features:

- Robust aluminium frame with enhanced 75mm polyamide thermal barrier
- Modern style top hung window with dual functionality
- Can be opened for ventilation or fully reversed to allow the outside of the window to be cleaned from the inside

Options:

- Available in a both single and dual colour options
- Able to receive glass and infill panels from 28 to 56mm thick depending on configuration
- Thermally enhanced to achieve BFRC ratings

Technical

Typical sizes	Overswing Open Out	1500mm x 1738mm
Weather rating *BS6375 part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Thickness	28mm - 56mm
Testing	Tested to	BS6375 - 2, BS6375 - 3
Average U-values	Residential CEN standard: 1230mm x 1480mm	
	Double glazed unit	1.6 W/m²K
	Triple glazed unit	1.2 W/m²K
	Commercial CEN standard: 1230mm x 1480mm	
	Double glazed unit	1.6 W/m²K
	Triple glazed unit	1.2 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

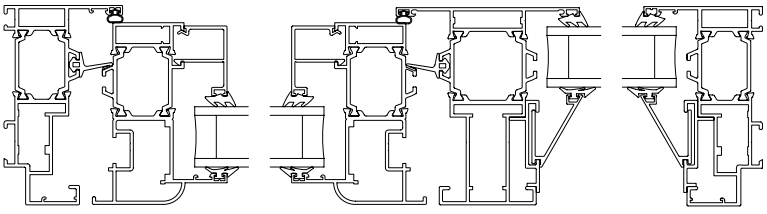
Secured by Design

Police Preferred Specification

Construction:

Both SPW600 and SPW600e are constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks. A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted into outer frames using specialist stays.

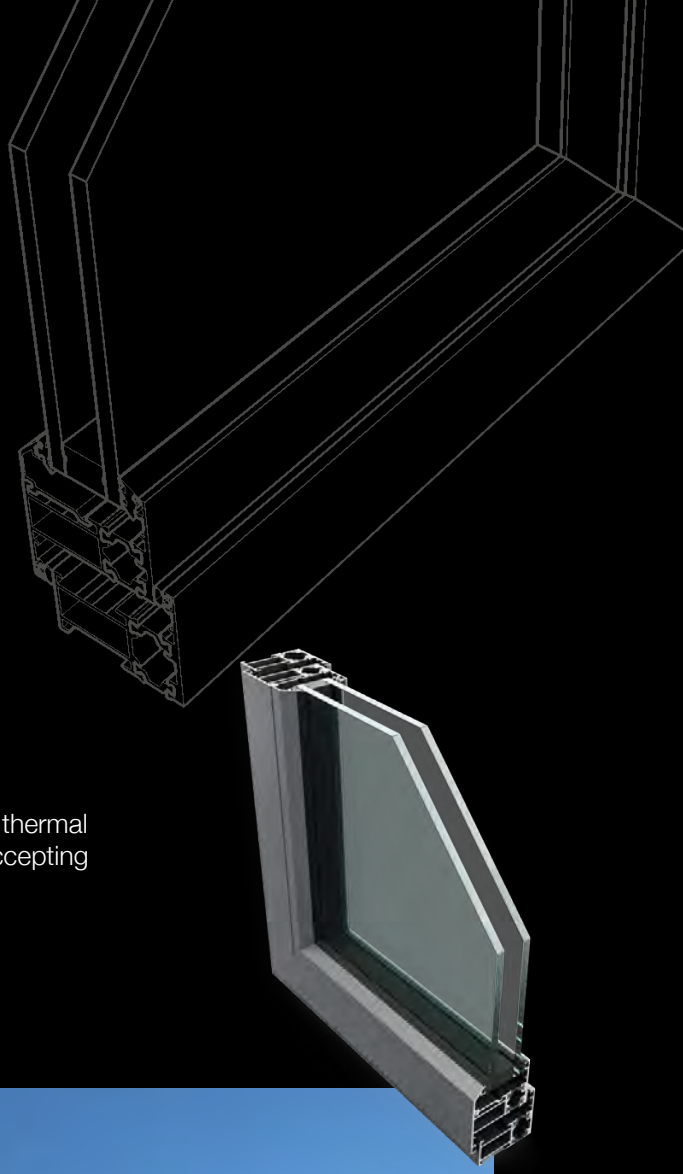
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Window systems

SPW300
Open Out Casement



The SPW300 casement window has been designed to meet current Building Regulations. This is a 51mm thermally-broken polyamide window system that achieves good thermal U-values. It is capable of accepting a variety of glazing options.

Royal Enfield
Leicestershire

Design features:

- Slimline aluminium frame with enhanced polyamide thermal barrier
- Traditional style casement window
- Can be side hung or top hung to create an awning window

Options:

- Available in a both single and dual colour options
- Able to receive glass and infill panels from 4 to 32mm thick depending on configuration
- Thermally-broken to achieve low U-values

Technical

Typical sizes	Top hung open out	1500mm x 1500mm
	Side hung open out	900mm x 1500mm
Weather rating *BS6375 Part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2000 Pa
Glazing	Thickness	4mm - 32mm
Testing	Tested to	BS6375 - 2, BS6375 - 3
Average U-values	Differing window + glass configurations produce differing U-values *Please consult our technical department.*	

Thermal performance:

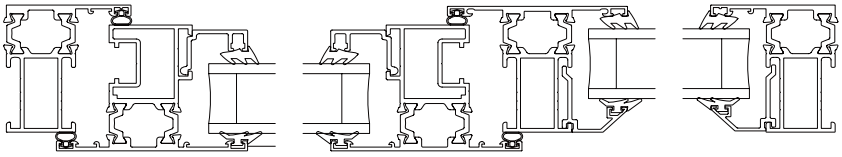
Contact us for BREEAM® rating information.

Separate figures are available for Thermal U-values depending on configuration and glazing used.

Construction:

SPW300 is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks. A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted into the outer frames using butt hinges or friction stays.

Technical drawings:



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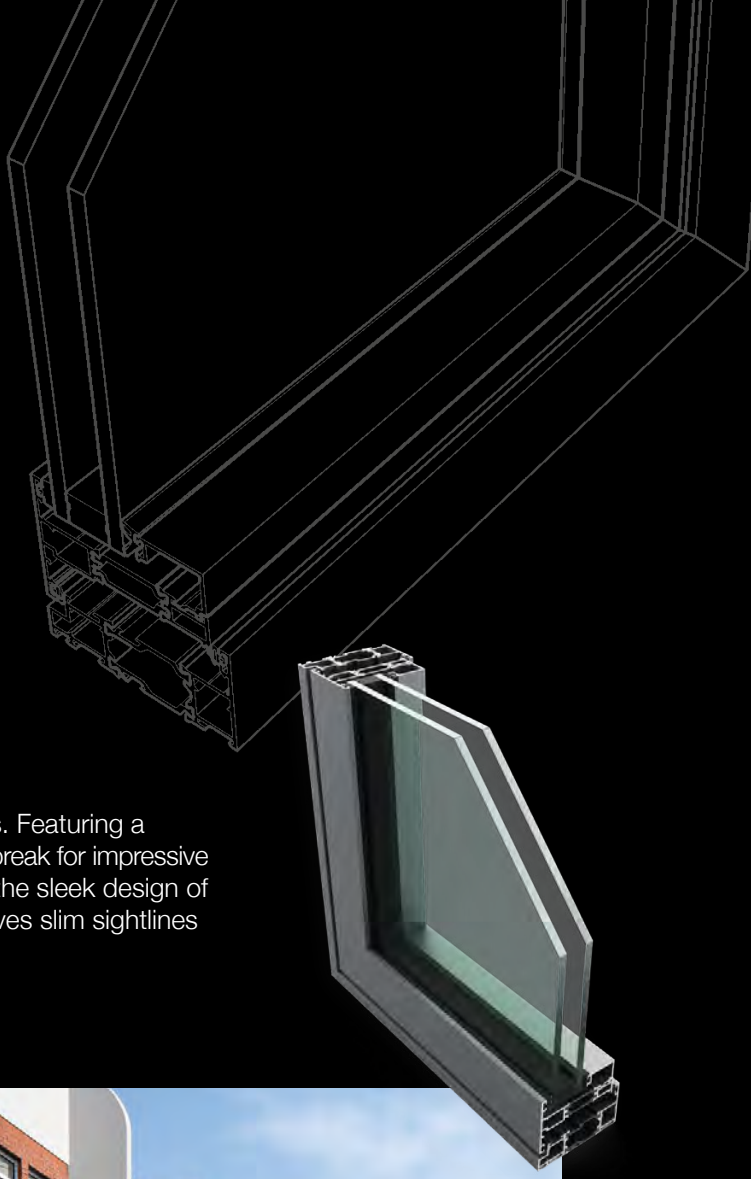


Window systems

Ali VU
Open Out Casement

Ideally suited to both commercial and residential buildings, the Ali VU aluminium window system can also be used as an attractive and cost-effective replacement for heritage style steel windows. Featuring a polyamide thermal break for impressive thermal-efficiency, the sleek design of the window also gives slim sightlines and wider views.

Lister Gardens
Crosby

Design features:

- Super slimline aluminium frame with enhanced polyamide thermal barrier
- Traditional style casement window
- Can be side hung or top hung to create an awning window
- Ideal for residential and domestic settings

Options:

- Radius, flat faced and stepped vent options
- Both standard and feature (ovolo style) outerframes
- Choice of square or chamfered beads
- Both internally and externally glazed options available

Technical

Typical sizes	Top hung	1400mm x 1400mm
	Side hung	950mm x 1400mm
Weather rating *BS6375 part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	1600 Pa
Glazing	Radius and stepped vent option	24mm - 36mm
	Outer frames and flat-faced option	24mm - 44mm
Window energy rating *Section and configuration dependent*	Double glazed unit	Capable of achieving A rating
	Triple glazed unit	Capable of achieving A+ rating
Testing	Tested to	PAS 24, BS6375 - 2, BS6375 - 3
Average U-values	Residential CEN standard: 1230mm x 1480mm	
	Double glazed unit	1.4 W/m²K
	Triple glazed unit	1.0 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

Secured by Design

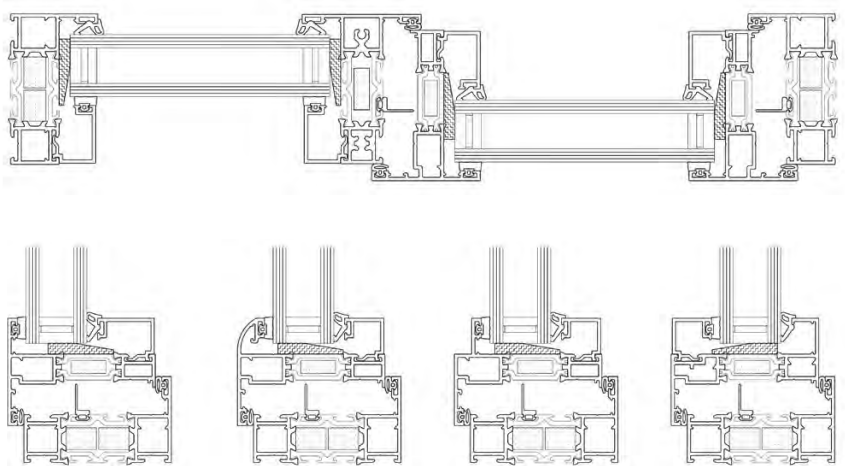
Police Preferred Specification

Construction:

Ali VU is constructed using mitred corners, joined with crimped cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screwports or shearblocks.

A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted directly into the outer frames using friction stays.

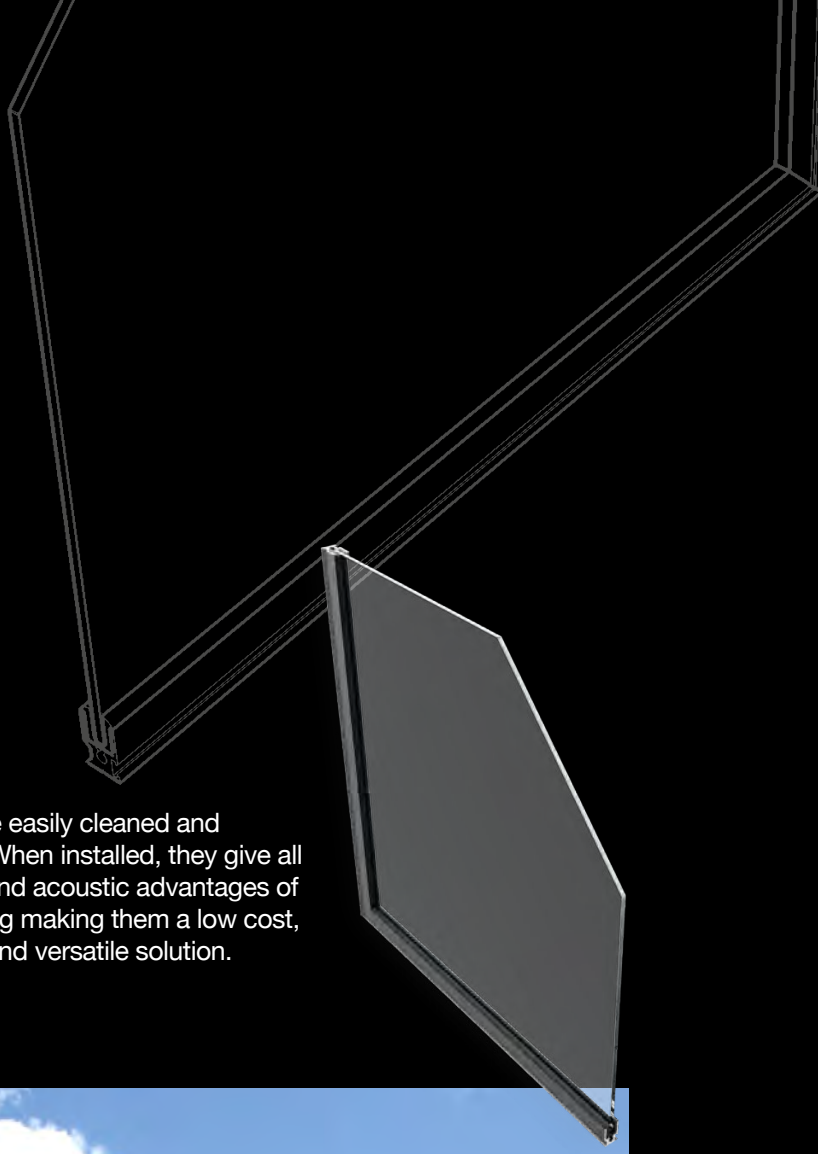
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Window systems

SSG
Secondary Glazing



Our range of aluminium alloy secondary windows has been designed to allow existing primary windows to be double-glazed. The windows are simple to install and operate and allow for both the existing primary and applied secondary window to be easily cleaned and maintained. When installed, they give all the thermal and acoustic advantages of double glazing making them a low cost, high quality and versatile solution.

Hilton Hotel T5
London Heathrow

Design features:

- Wide variety of colours to blend with internal design schemes
- Concealed perimeter fixings to enhance appearance
- Designed for double glazing existing primary windows
- Simple to install and operate

Options:

- Single light duty fixed light
- Single fixed light
- Hinged light
- Lift out light
- Horizontal sliding
- Vertical sliding

Technical

Typical sizes	Single light duty	1.8m²
	Fixed light	1.8m²
	Fixed HD	2.2m²
	Hinged lights	
	Side hung	700mm x 1800mm
	Top hung	1500mm x 600mm
	Double sided	1400mm x 1800mm
	Lift-out	
	4mm glass	1.5m²
	6mm glass	1.03m²
	Horizontal sliding	
	76282 meeting stiles	1200mm x 1300mm
	76281 meeting stiles	1200mm x 2000mm
	Vertical sliding	
	4mm glass	1.3m²
	6mm glass	0.88m²
Glazing	Thickness	4mm - 6mm

All Glazing should be carried out to the recommendations of B.S.6262.
Single glazing 4mm to 6mm is standard using channel glazing gaskets.

Thermal performance:

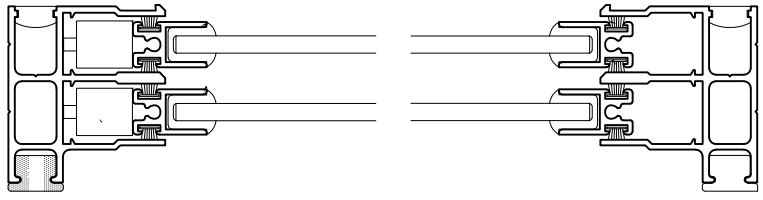
Contact us for BREEAM® rating information.

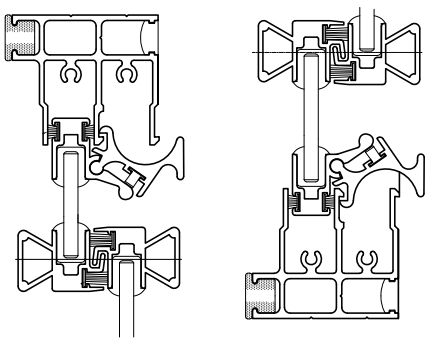
Due to the nature of secondary windows and the unknown in regards to the primary window, it is not possible to determine U-values. Contact us to discuss specific requirements

Construction:

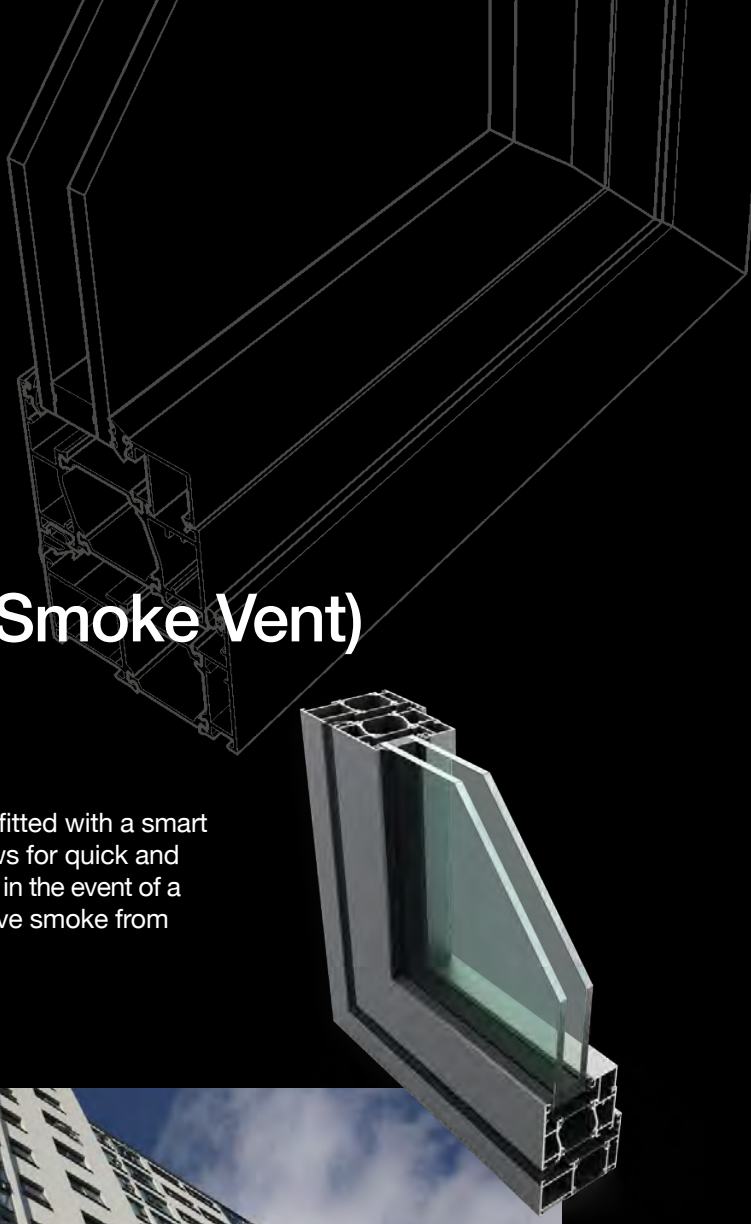
Frame corners are mitred and screw jointed with stainless steel self-tapping screws.

Technical drawings:





Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.



Window systems

SPW600 AOV
(SE Controls accredited Smoke Vent)

Our automatic opening ventilation (AOV) aluminium windows offer the same aesthetic as our popular SPW600 system with added benefits.

These windows are fitted with a smart actuator which allows for quick and automatic ventilation in the event of a fire, helping to remove smoke from the air.

Delaney Heights
Salford

Design features:

- Three chamber 75mm polyamide window system
- Achieves impressive thermal performance
- Available in typically 3 finishes
- Available in a range of colours

Options:

- Top hung
- Side hung
- Bottom hung

Technical

Typical sizes	Top hung	2500mm x 1200mm
	Side hung	1200mm x 2500mm
	Bottom hung	2500mm x 1200mm
Weather rating *BS6375 part 1*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Testing	Tested to	BS7950 - 1
Average U-values	Commercial CEN standard: 1230mm x 1480mm	
	Double glazed unit	1.4 W/m²K
	Triple glazed unit	1.0 W/m²K

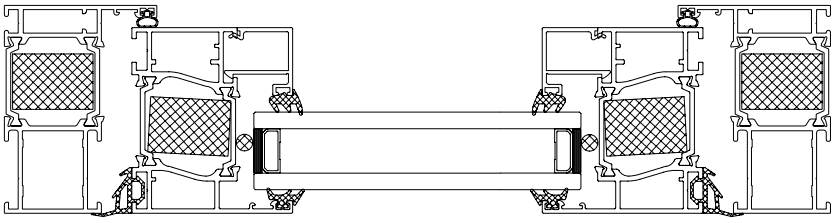
Thermal performance:

Contact us for BREEAM® rating information.

Construction:

SPW600 AOV is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks. A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted into the outer frames using butt hinges.

Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Window systems

Louvre Guard
Ventilation and Barrier Protection

The Louvre Guard system is a stylish aluminium louvre which can be used with our inward opening SPW300, SPW600 and PURe® window systems. It is ideal for high-rise buildings where excellent ventilation is needed, whilst keeping occupants safe from the risk of falling from a window. Available either in anodised silver or bronze, or in any standard RAL colour, the Louvre Guard System adds an extra design element to give any building a distinctive look.

Arts University Bournemouth
Bournemouth

Design features:

- Comprises an external adaptor and oval shaped blades, which are fixed to the outside of an inward opening window
- Easy to install, can be fixed through the face of the window or through a bespoke coupling mullion to maintain the thermal barrier
- Fully barrier load and impact load tested

Options:

- The blades can be positioned horizontally or at any angle up to 45 degrees in either direction
- Available with a maximum blade span of 1000mm

Technical

Typical sizes

The size limitation of the system as a whole must consider the span of the louvre blade and the size limitations of the window system* to which the Louvre Guard System is fixed.

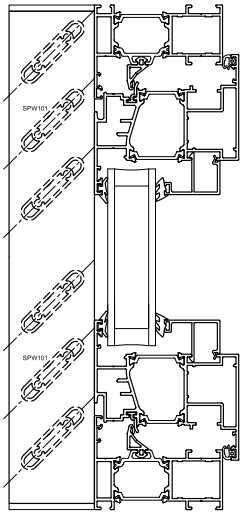
**Please refer to relevant window manual for size limitations of the window system.*

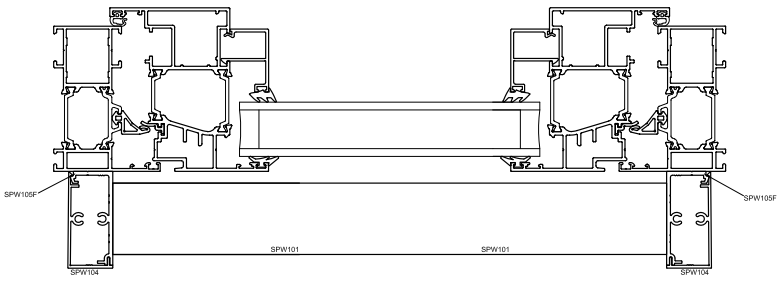
	Maximum allowable span	1000mm
Testing	Barrier load tested to	BS6180
	Impact load tested to	EN13049

Construction:

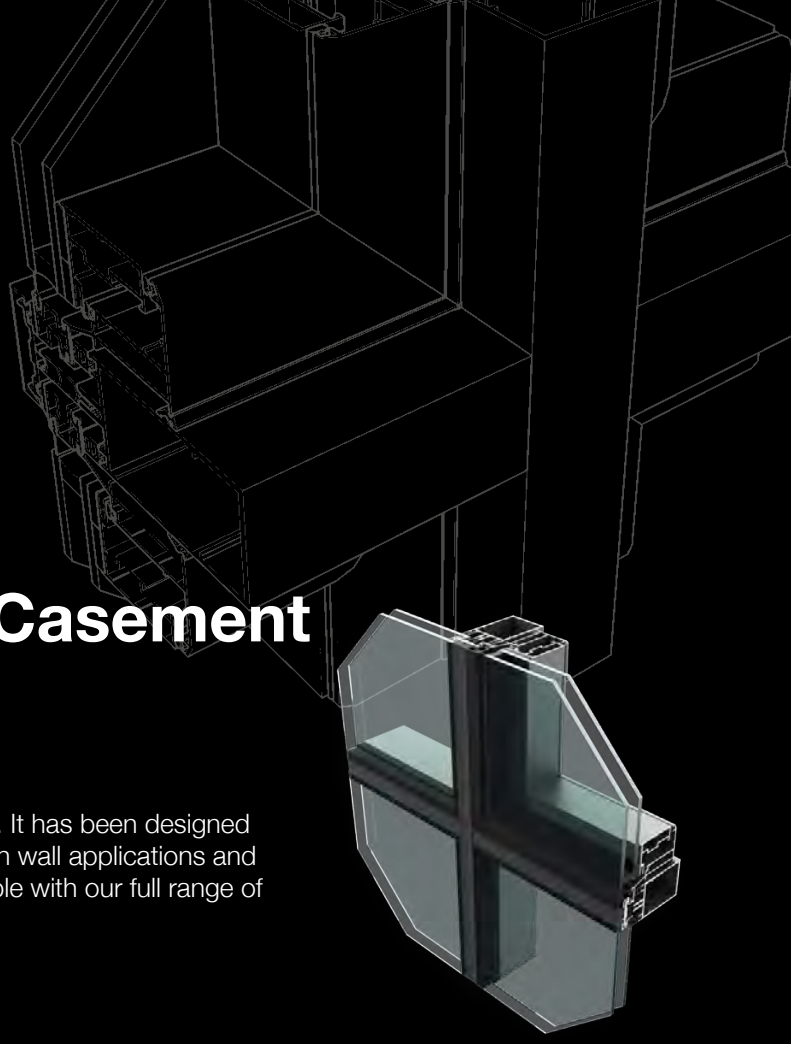
The Louvre Guard System is constructed using louvre blades screwed to a receiver section, which is screw fixed to the relevant window outer frame/mullion. Screw fixings are then concealed with an extruded capping section which is then finished with an injection moulded end cap.

Technical drawings:





Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.



Window systems

SFF
Open Out Frameless Casement

SFF is a flush aluminium glazing solution which has been developed to help achieve sleek and seamless fenestration designs. The frameless system means that no framework is visible on the external façade. It has been designed for use in curtain wall applications and is fully compatible with our full range of systems.

Marks & Spencer Cheshire Oaks
Ellesmere Port

Design features:

- Sleek frameless design
- Silicone bonded vent, in the outward opening casement

Options:

- Available as an Open Out Casement (top/side hung) and Parallel Push window
- The system accepts 28mm glazing thickness

Technical

Typical sizes	Top hung	
	Maximum vent size	1500mm x 1500mm
	Side hung	
	Maximum vent size	836mm x 1500mm
Weather rating *CWCT Sequence B*	Air permeability	600 Pa
	Water tightness	600 Pa *(BS EN 13050: 900 Pa)*
	Wind resistance	2400 Pa
Testing	Tested to	CWCT Sequence B, BS EN 13050

Thermal performance:

Contact us for BREEAM® rating information.

Separate figures are available for Thermal U-values depending on configuration and glazing used.

Construction:

The SFF Casement Window is constructed using mitred and crimped with support corners chevrons and cleats. Glass is bonded to the opening frame by a specialist using an appropriate product. A proprietary sealant to protect against water entry should be used on all metal-to-metal joints and cleat insertion points at assembly.

Each opening vent is designed to be inserted directly into the outer frames using friction stays and then the product is glazed into a curtain walling system as selected from the comprehensive range available.

Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Product specification

Swing Door Systems

Our swing doors can help maximise a space, providing greater accessibility and offer exceptional performance. Available in a choice of single and double designs and different opening configurations, our aluminium doors can be operated manually or via automatic controls and offer the highest levels of durability, weather-resistance, security and thermal-efficiency.

Materials

Extruded aluminium is generally Aluminium Alloy 6060.T6/T66, 6063.T6/T66, 6082.T6 to BS EN 755-9 and EN 12020 - 2.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25.

Gaskets are manufactured in accordance with BS ISO 3302 - 1.

For project specific assistance, please contact our specification team.

Environmental

Accredited to BRE Global's BES 6001 standard, we're committed to the responsible and sustainable sourcing of all our aluminium extrusions. Senior Architectural Systems is also fully compliant with BS EN ISO 9001 and BS EN ISO 14001.

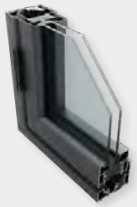
Manufactured from recycled aluminium, all our aluminium systems offer closed loop recycling and can be endlessly reused with no detriment to quality.

Finishes

Our state-of-the-art powder coating facility is one of the most advanced, and environmentally-friendly, in the UK. As well as providing standard RAL colours, our colour matching service also enables bespoke shades to be created which can then be specified as single or dual colours.

Specifiers can choose from standard matt, satin or gloss finishes or for a traditional metallic look, anodised and mill finishes are also available.

Swing Door Options



PURe®

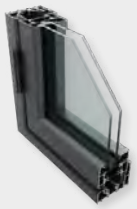
Pages 42 - 43

Patented aluminium single and double folding doors with an expanded polyurethane thermal barrier to give exceptional thermal performance and low U-values.

SPW600e

Pages 44 - 45

Robust thermally enhanced door system offering design flexibility with a choice of colours and styles.



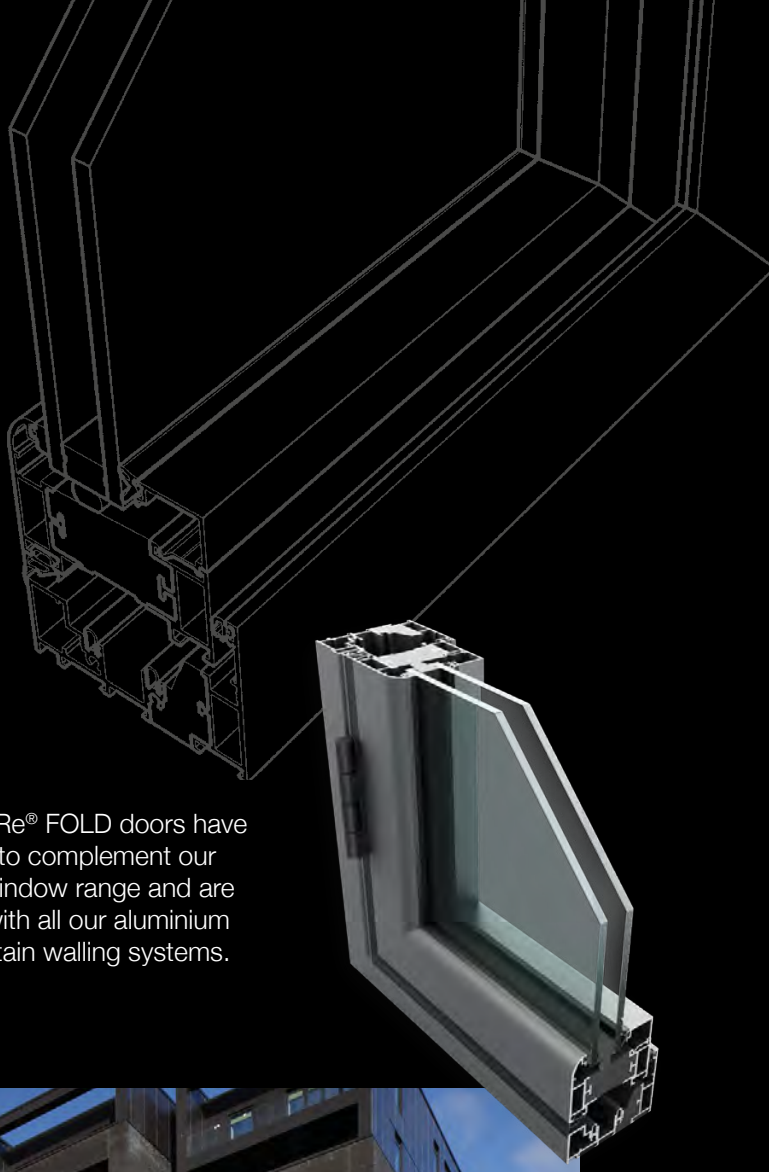
Ali FOLD

Pages 46 - 47

Slimline and stylish thermally-broken doors with a polyamide thermal break suitable for both domestic and light commercial applications.

Swing door systems

PURe® FOLD Single/Double



Our single and double PURe® FOLD doors feature an innovative, enhanced thermal barrier manufactured from expanded polyurethane (PUR), allowing ultra low U-values to be achieved. Designed for maximum style and performance, PURe® FOLD doors have narrow sightlines to complement our popular PURe® window range and are fully compatible with all our aluminium windows and curtain walling systems.

Cotton Field Wharf
Manchester

Design features:

- Exceptional thermal performance to achieve low U-values
- Ideal for both domestic and light commercial new builds and refurbishments
- Slim sightlines for maximum daylight and views
- Easy to fabricate, install and adjust

Options:

- Double and triple glazing
- Available pre-finished or in an almost unlimited range of colours and finishes both inside and out
- Leaf sizes up to 1000mm x 2616mm, with weights up to 100kg

Technical

Typical sizes	Max door leaf width	1000mm
	Max door leaf height	2616mm
	Max single door width	1000mm
	Max double door width	2162mm
	Max outerframe height	2700mm
	Max weight *(per door leaf)*	100kg
Glazing	Thickness	24mm - 48mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3
Average U-values	Double door. CEN standard: 2000mm x 2180mm (+25%)	
	Double glazed unit	1.3 W/m²K
	Triple double glazed unit	0.88 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

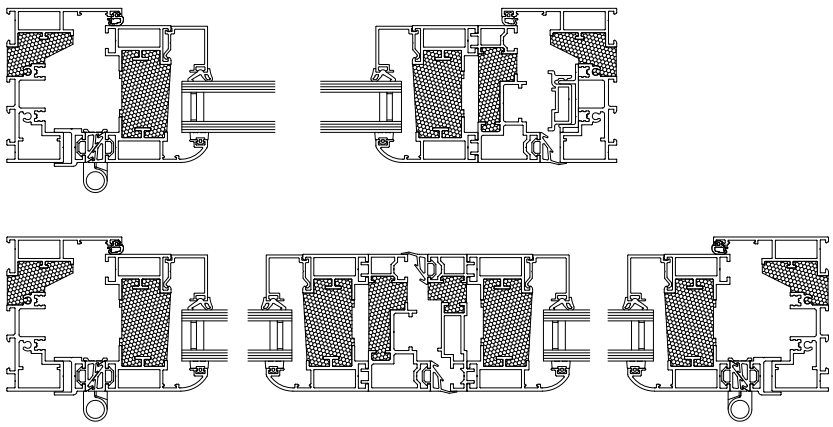
PAS 24 — Enhanced Security Performance — PAS 24:2016

Secured by Design — SBD — Police Preferred Specification

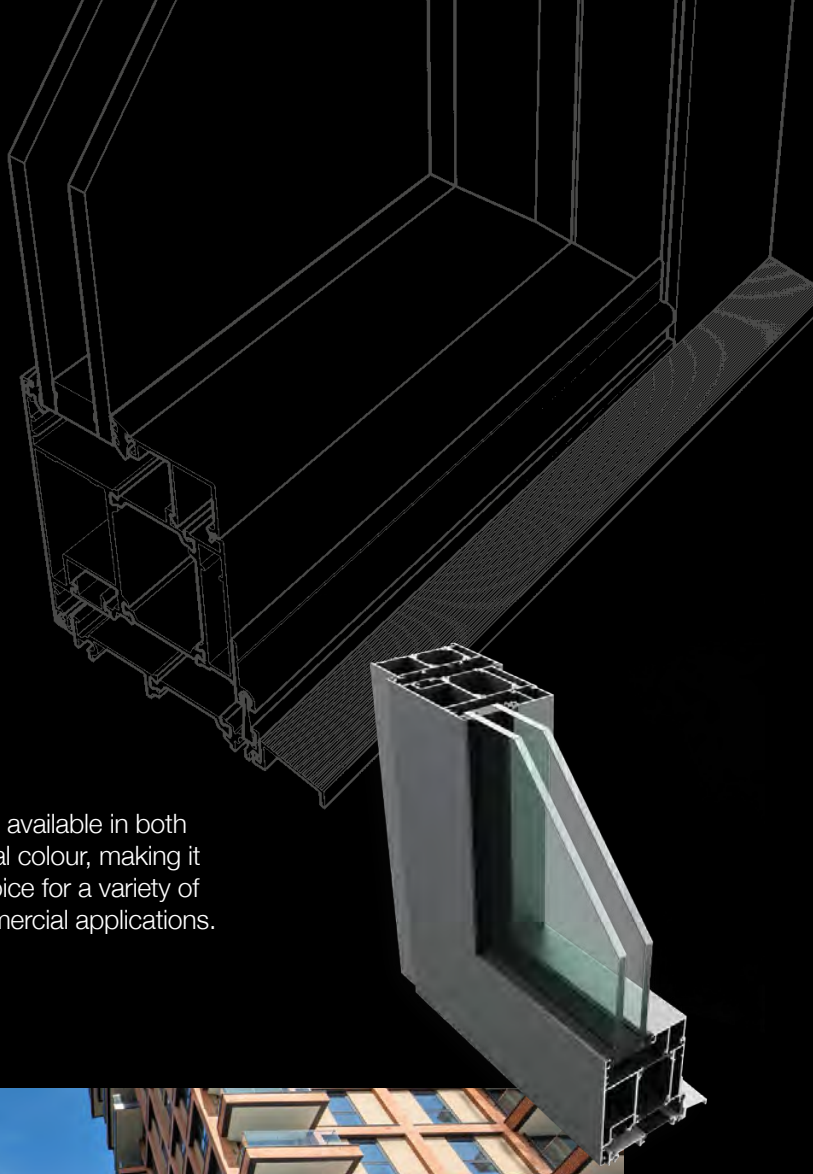
Construction:

PURe® is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. A proprietary sealant is used on all metal joints in line with good practice.

Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.



Swing door systems

SPW600e Single/Double

One of our most established door ranges, SPW600e is a 75mm thermally-broken polyamide aluminium door system that utilises low thresholds, providing a variety of styles to suit almost any application.

This system is available in both single and dual colour, making it a versatile choice for a variety of different commercial applications.

Williamson Heights
Wembley

Design features:

- Efficient 75mm thermally-broken polyamide door
- Low threshold design
- Able to receive glazing from 28 to 56mm thick

Options:

- Available in single, double, inward or outward opening configurations
- Can be specified in single or dual colour

Technical

Typical sizes	Max single door	1000mm x 2400mm
	Max double door	2000m x 2400mm
	Max weight *(per door leaf)*	75kg
Glazing	Thickness	28mm - 56mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3
Average U-values	Single door. CEN Standard:1230 mmx 2180mm	
	Double glazed unit	1.4 W/m²K
	Triple glazed unit	1.0 W/m²K
	Double door. CEN Standard: 2000mm x 2180 mm(+25%)	
	Double glazed unit	1.3 W/m²K
	Triple glazed unit	0.95 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

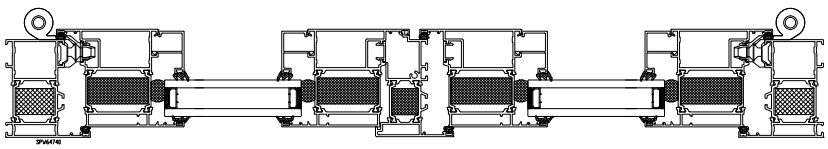
PAS 24 — Enhanced Security Performance — PAS 24:2016

Secured by Design — SBD — Police Preferred Specification

Construction:

The SPW600 and SPW600e door is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist on clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screw ports or shear blocks. A proprietary sealant is used on all metal joints in line with good practice. Opening door frames are designed to be inserted directly into the outer frames using face mounted hinges and hook looks.

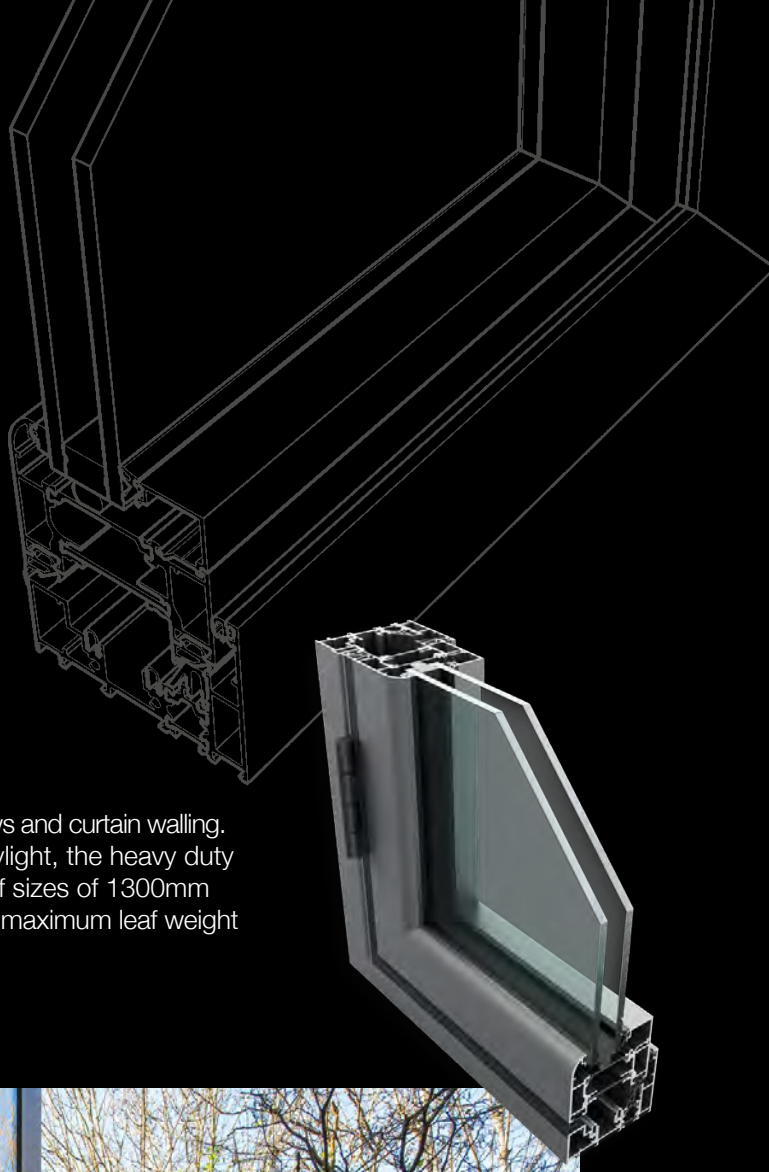
Technical drawing:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Swing door systems

Ali FOLD Single/Double



The Ali FOLD door is a stylish, high-performance range of folding aluminium doors. Suitable for both commercial and domestic use, Ali FOLD doors have a polyamide thermal break to give impressive thermal-efficiency and are fully compatible with all our windows and curtain walling. For maximum daylight, the heavy duty version allows leaf sizes of 1300mm x 2400mm with a maximum leaf weight of 125kg.

Private House
Leeds

Design features:

- Polyamide thermal break for impressive thermal-efficiency
- Ideal for both domestic and commercial use
- Slim sightlines for maximum daylight and views
- Easy to fabricate, install and adjust

Options:

- Double and triple glazing
- Available pre-finished or in an almost unlimited range of colours and finishes both inside and out
- Leaf sizes up to 1000mm x 2616mm, with weights up to 100kg

Technical

		Standard duty	Heavy duty
Typical sizes			
	Max door leaf width	1000mm	1300mm
	Max door leaf height	2616mm	2400mm
	Max door leaf weight	100kg	125kg
Glazing	Thickness	24mm - 48mm	
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3	
Average U-values	Double door. CEN standard: 2000mm x 2180mm (+25%)		
	Double glazed unit	1.4 W/m²K	
	Triple glazed unit	1.0 W/m²K	

Thermal performance:

1.0 W/m²K

Contact us for BREEAM® rating information.

Safety and security:

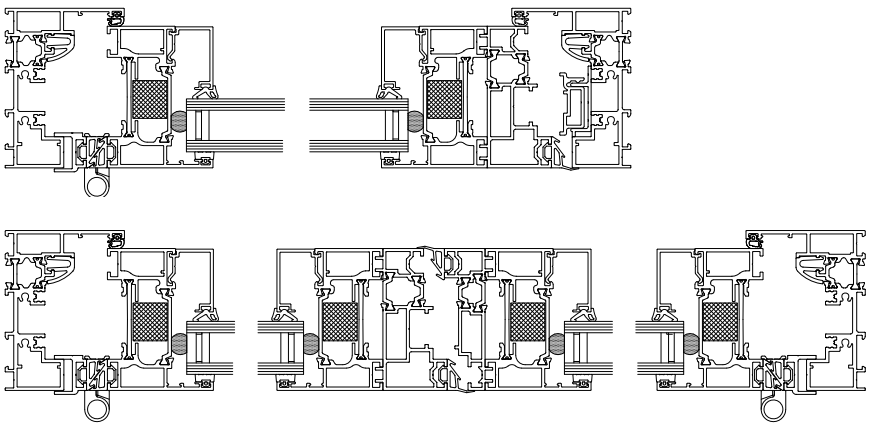
PAS 24 — Enhanced Security Performance — PAS 24:2016

Secured by Design — SBD — Police Preferred Specification

Construction:

Ali FOLD is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. A proprietary sealant is used on all metal joints in line with good practice.

Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Product specification

Sliding Door Systems

A stylish and space-saving solution, our aluminium sliding doors are available as inline and lift and slide options, and with the added flexibility of heavy duty and triple-track styles. Benefitting from a highly durable aluminium frame, our sliding doors offer slim sightlines for wider views and are available in a range of sizes, glazing options and finishes.

Materials

Extruded aluminium is generally Aluminium Alloy 6060.T6/T66, 6063.T6/T66, 6082.T6 to BS EN 755-9 and EN 12020 - 2.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25.

Gaskets are manufactured in accordance with BS ISO 3302 - 1.

For project specific assistance, please contact our specification team.

Environmental

Accredited to BRE Global's BES 6001 standard, we're committed to the responsible and sustainable sourcing of all our aluminium extrusions. Senior Architectural Systems is also fully compliant with BS EN ISO 9001 and BS EN ISO 14001.

Manufactured from recycled aluminium, all our aluminium systems offer closed loop recycling and can be endlessly reused with no detriment to quality.

Finishes

Our state-of-the-art powder coating facility is one of the most advanced, and environmentally-friendly, in the UK. As well as providing standard RAL colours, our colour matching service also enables bespoke shades to be created which can then be specified as single or dual colours.

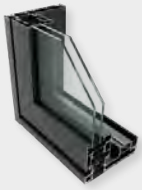
Specifiers can choose from standard matt, satin or gloss finishes or for a traditional metallic look, anodised and mill finishes are also available.

Sliding Door Options

PURe® SLIDE

Pages 50 - 53

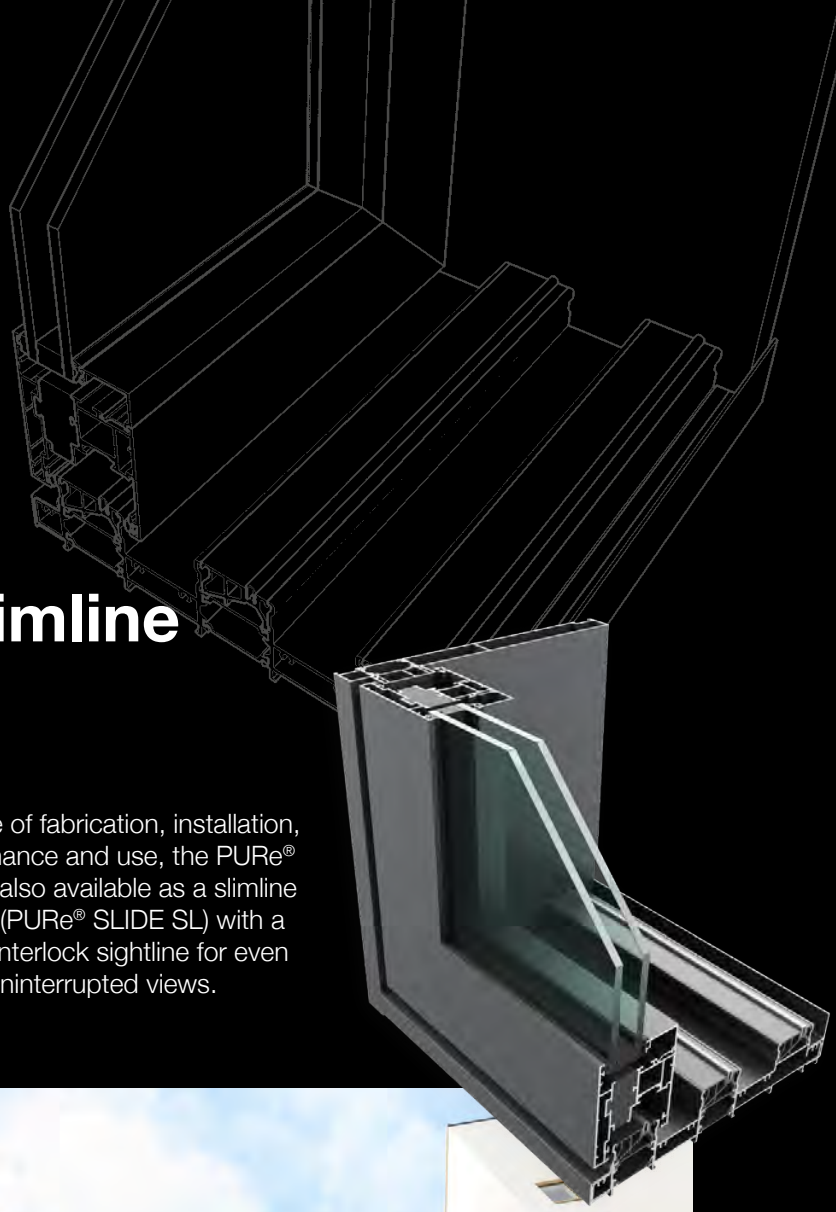
Patented aluminium sliding doors with an expanded polyurethane thermal barrier to give exceptional thermal performance and low U-values.



Ali SLIDE

Pages 54 - 55

A stylish slimline, high-performance range of aluminium inline sliding doors with PAS 24 security.



Sliding door systems

PURe® SLIDE Inline: Standard/Slimline

The stylish PURe® SLIDE is a high-performance aluminium inline sliding which benefits from our innovative patented expanded polyurethane (PUR) thermal barrier to achieve low U-values and high thermal-efficiency. Designed for ease of fabrication, installation, maintenance and use, the PURe® Slide is also available as a slimline version (PURe® SLIDE SL) with a 50mm interlock sightline for even wider, uninterrupted views.

Waterside Apartments
Nottingham

Design features:

- Exceptional thermal performance to achieve low U-values
- Ideal as a residential patio door
- Slimline version (PURe® SLIDE SL) features a 50mm interlock sightline for uninterrupted views
- Easy to fabricate, install and adjust

Options:

- Available as single, double or triple track
- Double and triple glazing
- Max outerframe heights of 3000mm
- Pre-finished or in an almost unlimited range of colours and finishes both inside and out

Technical

Typical sizes	Max door leaf width	3005mm
	Max door leaf height	2916mm
	Max door sash weight *(per door leaf)*	160kg
Glazing	Thickness	28mm - 52mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3
Average U-values	Double door. CEN standard: 2000mm x 2180mm (+25%)	
	Double glazed unit	1.4 W/m²K
	Triple glazed unit	0.95 W/m²K

Thermal performance:

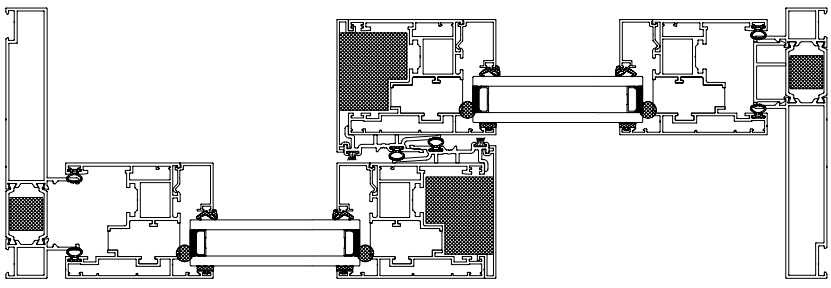
Contact us for BREEAM® rating information.

Safety and security:

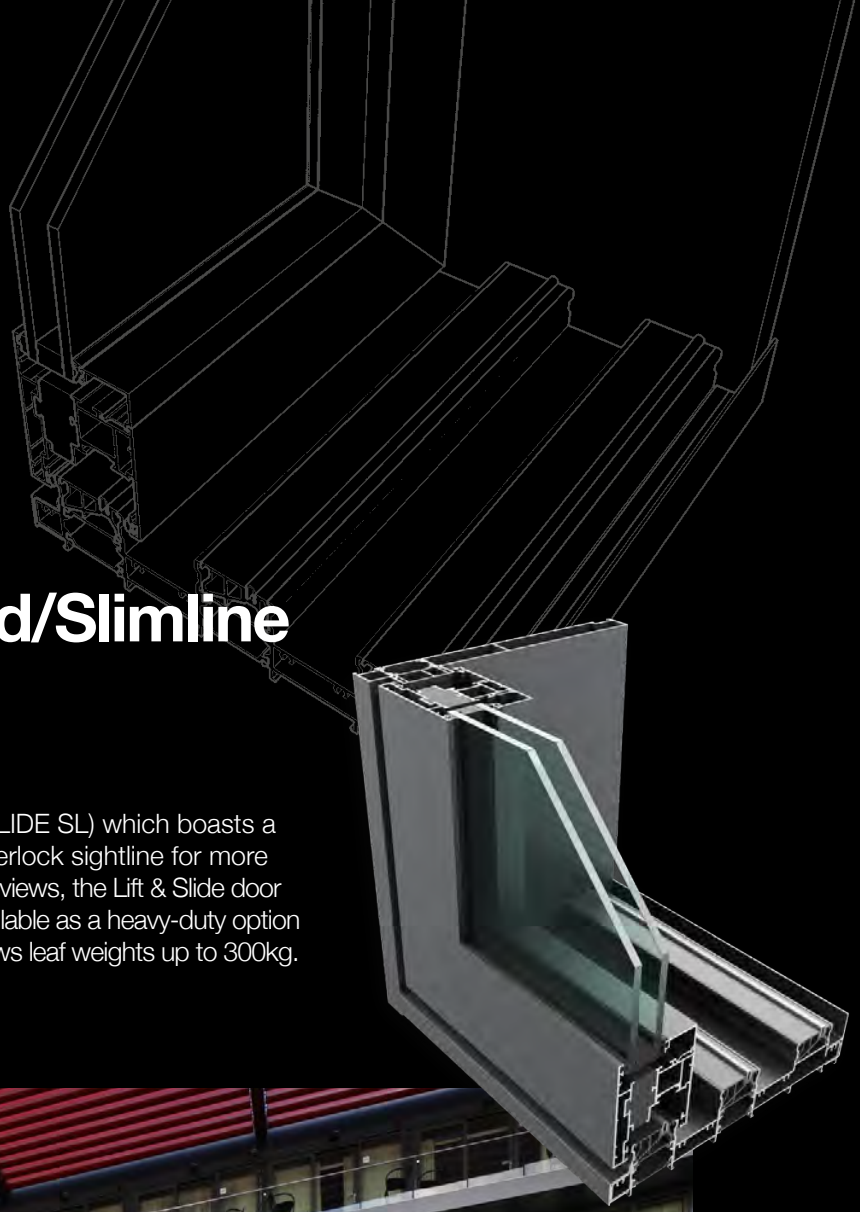
Construction:

PURe® is constructed using mitred corners, joined with mechanical cleats; alignment chevrons assist in clean, accurate mitres. A proprietary sealant is used on all metal joints in line with good practice.

Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.



Sliding door systems

PURe® SLIDE
Lift & Slide: Standard/Slimline

The PURe® SLIDE high performance aluminium door range features our innovative patented expanded polyurethane (PUR) thermal barrier, allowing ultra low U-values to be achieved. As well as a slimline version (PURe® SLIDE SL) which boasts a 50mm interlock sightline for more expansive views, the Lift & Slide door is also available as a heavy-duty option which allows leaf weights up to 300kg.

Hilton Gardens Hotel
Old Trafford

Design features:

- Exceptional thermal performance to achieve low U-values
- Standard, heavy-duty and slimline versions available
- Heavy-duty Lift & Slide option allows leaf weights up to 300kg
- Slimline version (PURe® SLIDE SL) features a 50mm interlock sightline for uninterrupted views

Options:

- Available as single, double or triple track
- Double and triple glazing
- Max outerframe heights of 3000mm
- Pre-finished or in an almost unlimited range of colours and finishes both inside and out

Technical

Typical sizes	Max door leaf width	3005mm
	Max door leaf height	2916mm
	Max door sash weight: standard duty	200kg
	Max door sash weight: heavy duty	300kg
Glazing	Thickness	28mm - 52mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3
Average U-values	Double door. CEN standard: 2000mm x 2180mm (+25%)	
	Double glazed unit	1.4 W/m²K
	Triple glazed unit	0.95 W/m²K

Thermal performance:

0.95
W/m²K

Contact us for BREEAM® rating information.

Safety and security:

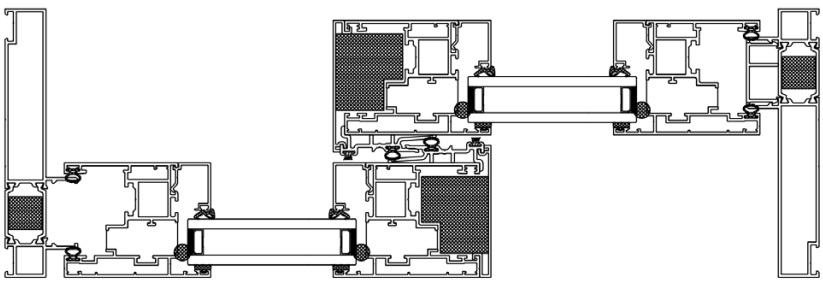
PAS 24 — Enhanced Security Performance — PAS 24:2016

Secured by Design — SBD — Police Preferred Specification

Construction:

PURe® is constructed using mitred corners, joined with mechanical cleats; alignment chevrons assist in clean, accurate mitres. A proprietary sealant is used on all metal joints in line with good practice.

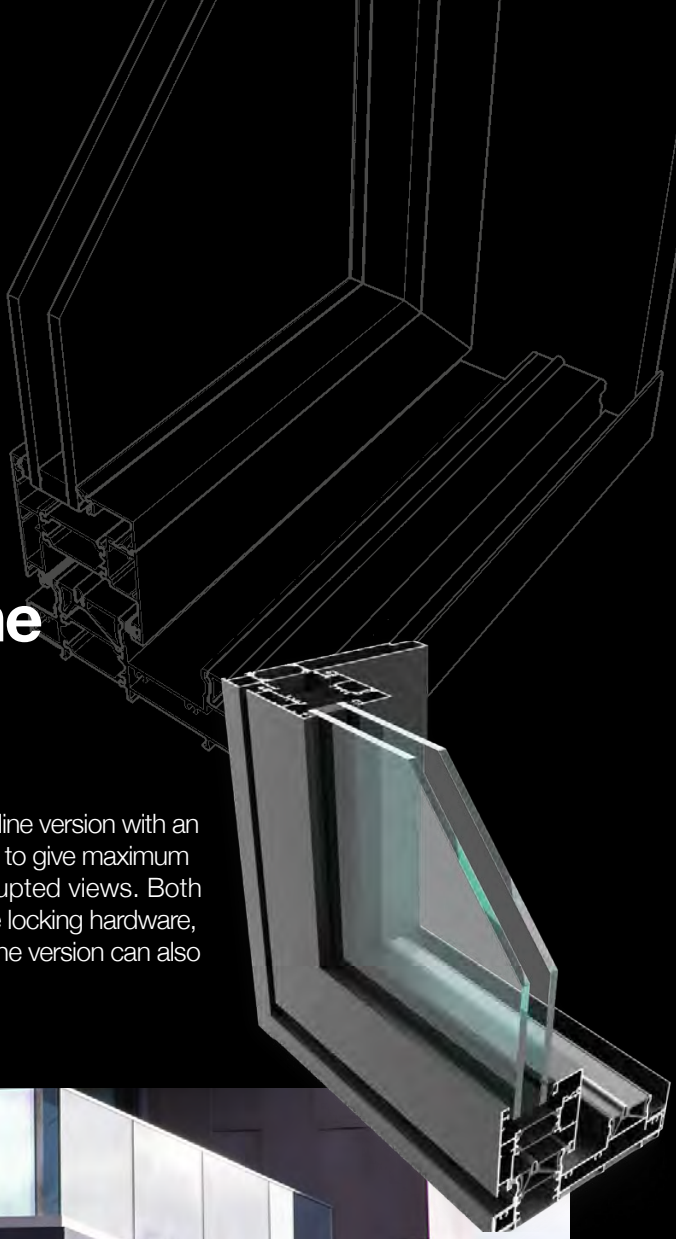
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Sliding door systems

Ali SLIDE Inline: Standard/Slimline



Ali SLIDE is a slimline, high-performance inline aluminium sliding door with PAS 24 security and impressive thermal-efficiency. Suitable for both domestic and commercial use, Ali SLIDE is available as both a standard version with a 79mm interlock and as a slimline version with an interlock of just 50mm to give maximum daylight and uninterrupted views. Both versions use the same locking hardware, which is why the slimline version can also achieve PAS 24.

The Smokehouse
Smith Dock

Design features:

- Impressive thermal performance with PAS 24 security
- Ideal for both domestic and commercial use
- Slim sightlines for maximum daylight and uninterrupted views
- Standard (79mm interlock) and slimline version (50mm interlock) available

Options:

- Available as single, double or triple track
- Double and triple glazing
- Max outerframe heights of 2700mm
- Pre-finished or in an almost unlimited range of colours and finishes both inside and out

Technical

Typical sizes	Max door leaf width	2500mm
	Max door leaf height	2616mm
	Max weight *(per door leaf)*	220kg
Glazing	Thickness	24mm - 44mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3
Average U-values	Double door. CEN standard thermal enhancement: 2000mm x 2180mm (+25%)	
	Double glazed unit	1.3 W/m²K
	Triple glazed unit	0.9 W/m²K

Thermal performance:

0.9
W/m²K

Contact us for BREEAM® rating information.

Safety and security:

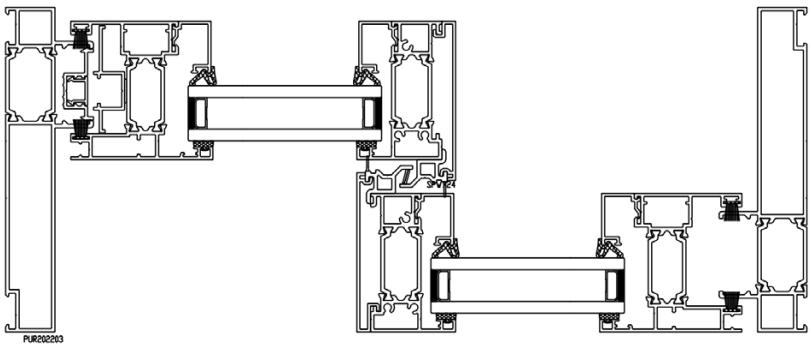
PAS 24 — Enhanced Security Performance — PAS 24:2016

Secured by Design — SBD — Police Preferred Specification

Construction:

Ali SLIDE is constructed using mitred corners, joined with mechanical cleats; alignment chevrons assist in clean, accurate mitres. A proprietary sealant is used on all metal joints in line with good practice.

Technical drawing:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Product specification

Folding Sliding Door Systems

Popular in both the residential and commercial market, our classic folding sliding aluminium doors offer a range of modern benefits, including minimal maintenance and the potential to achieve exceptional low U-values. Expertly manufactured and designed for ease of operation, our doors are available in a choice of leaf sizes and weights.

Materials

Extruded aluminium is generally Aluminium Alloy 6060.T6/T66, 6063.T6/T66, 6082.T6 to BS EN 755-9 and EN 12020 - 2.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25.

Gaskets are manufactured in accordance with BS ISO 3302 - 1.

For project specific assistance, please contact our specification team.

Environmental

Accredited to BRE Global's BES 6001 standard, we're committed to the responsible and sustainable sourcing of all our aluminium extrusions. Senior Architectural Systems is also fully compliant with BS EN ISO 9001 and BS EN ISO 14001.

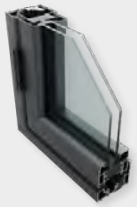
Manufactured from recycled aluminium, all our aluminium systems offer closed loop recycling and can be endlessly reused with no detriment to quality.

Finishes

Our state-of-the-art powder coating facility is one of the most advanced, and environmentally-friendly, in the UK. As well as providing standard RAL colours, our colour matching service also enables bespoke shades to be created which can then be specified as single or dual colours.

Specifiers can choose from standard matt, satin or gloss finishes or for a traditional metallic look, anodised and mill finishes are also available.

Folding Sliding Door Options



PURe® FOLD

Pages 58 - 59

Patented aluminium folding doors with an expanded polyurethane thermal barrier to give exceptional thermal performance and low U-values.

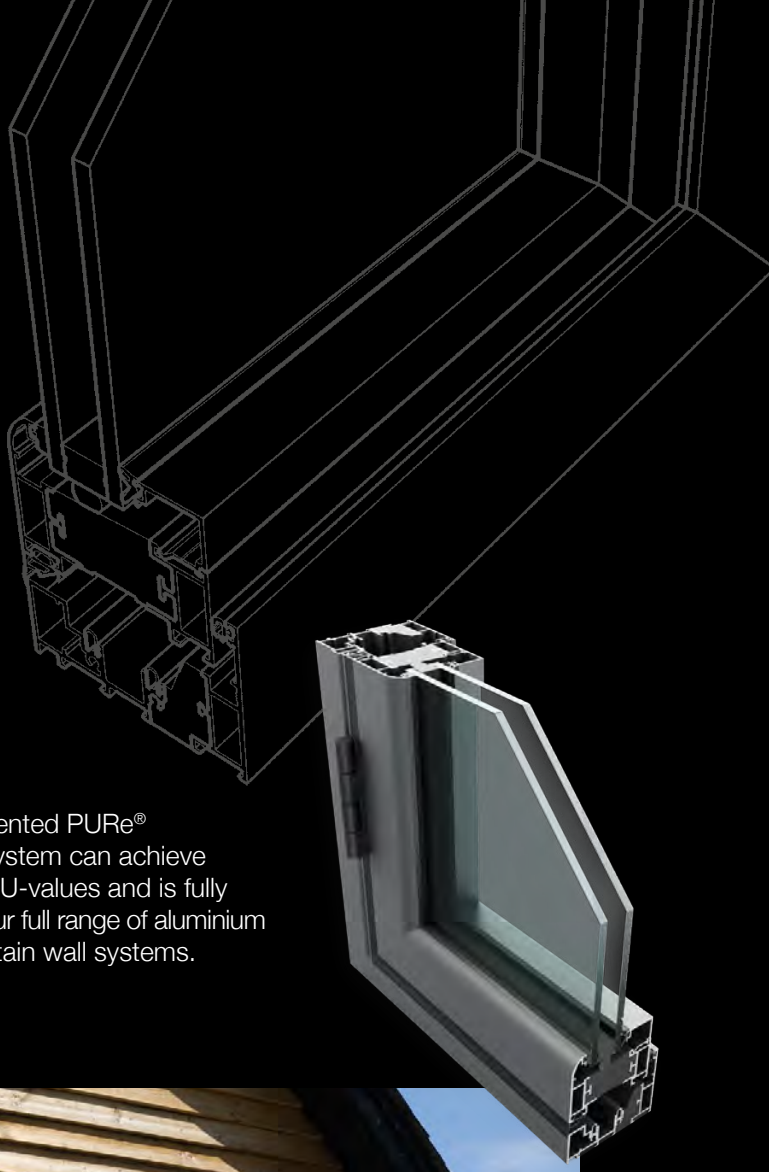
Ali FOLD

Pages 60 - 61

A stylish slimline, high-performance range of aluminium folding doors with PAS 24 security.

Folding sliding door systems

PURe® FOLD Folding Sliding



Ideally suited for both domestic and commercial applications, our popular PURe® FOLD folding sliding door combines stunning aesthetics and slim sightlines with exceptional thermal-efficiency.

Featuring our patented PURe® technology, the system can achieve exceptionally low U-values and is fully compatible with our full range of aluminium windows and curtain wall systems.

Private House
North Wales

Design features:

- Exceptional thermal performance to achieve low U-values
- Ideal for both domestic and light commercial new builds and refurbishments
- Slim sightlines for maximum daylight and views
- Easy to fabricate, install and adjust

Options:

- Double and triple glazing
- Available pre-finished or in an almost unlimited range of colours and finishes both inside and out
- Leaf sizes up to 1000mm x 2616mm, with weights up to 100kg

Technical

Typical sizes	Max door leaf width	1000mm
	Max door leaf height	2616mm
	Max outerframe width	6000mm
	Max outerframe height	2700mm
	Max weight *(per door leaf)*	100kg
Glazing	Thickness	24mm - 48mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3
Average U-values	CEN standard: 2000mm x 2180mm (+25%)	
	Double glazed unit	1.3 W/m²K
	Triple glazed unit	0.88 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

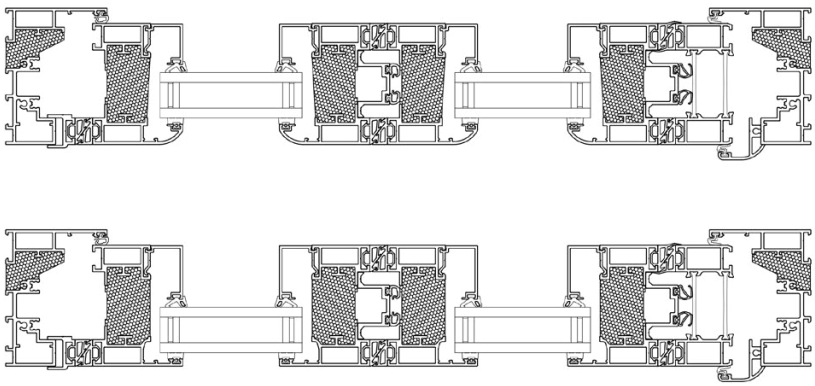
Secured by Design

Police Preferred Specification

Construction:

PURe® is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. A proprietary sealant is used on all metal joints in line with good practice.

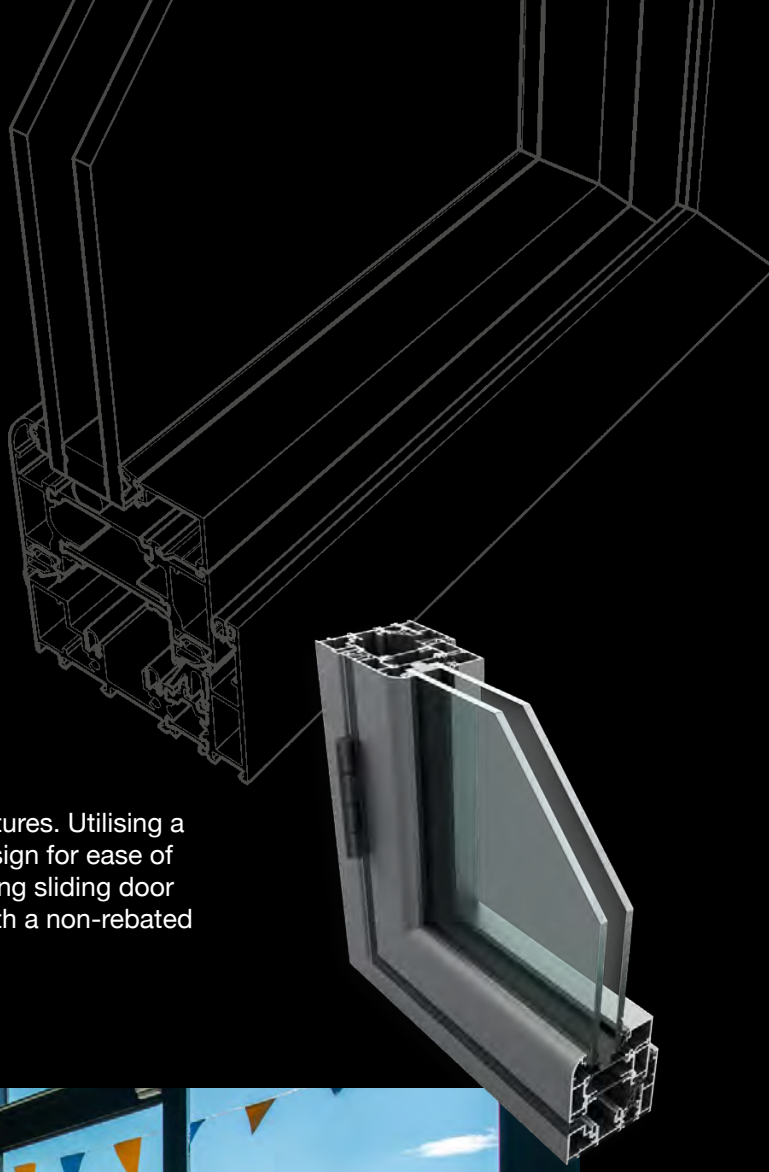
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Folding sliding door systems

Ali FOLD Folding Sliding



Whether used as stylish patio door for residential schemes or as a high performance commercial door solution, our Ali FOLD aluminium doors combine stylish aesthetics with high thermal-efficiency and robust security features. Utilising a high-tech roller design for ease of operation, the folding sliding door is also available with a non-rebated threshold.

Doncaster Market
Doncaster

Design features:

- Polyamide thermal break for impressive thermal-efficiency
- Ideal for both domestic and commercial use
- Slim sightlines for maximum daylight and views
- Easy to fabricate, install and adjust

Options:

- Available pre-finished or in an almost unlimited range of colours and finishes both inside and out
- Leaf sizes up to 1000mm x 2616mm, with weights up to 100kg
- Heavy duty version offers widths up to 1300mm
- Non-rebated threshold available

Technical

Typical sizes *For guidance only – when exceeded please consult our technical department*	Standard: max door leaf width	1000mm
	Standard: max door leaf height	2616mm
	Standard: max weight *(per door leaf)*	100kg
	Heavy duty: max door leaf width	1300mm
	Heavy duty: max door leaf height	2400mm
	Heavy duty: max weight *(per door leaf)*	125kg
Glazing	Thickness	28mm - 48mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3
Average U-values	Double door. CEN standard: 2000mm x 2180mm (+25%)	
	Double glazed unit	1.4 W/m²K
	Triple glazed unit	1.0 W/m²K

Thermal performance:

1.0 W/m²K

Contact us for BREEAM® rating information.

Safety and security:

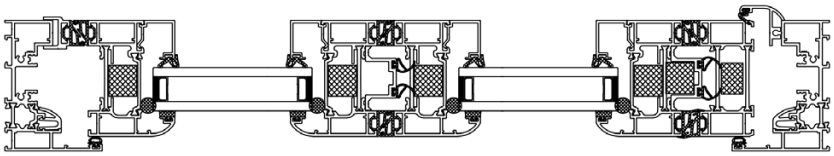
PAS 24 – Enhanced Security Performance – PAS 24:2016

Secured by Design – SBD – Police Preferred Specification

Construction:

Ali FOLD is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. A proprietary sealant is used on all metal joints in line with good practice.

Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Product specification

Commercial Low-Rise Systems

Built to last and not only to meet, but exceed current Building Regulations, we have a range of aluminium solutions to meet the demands of the commercial market.

From safe and secure commercial doors to Low-Rise aluminium curtain wall systems and shop front glazing, we can help create façades with both style and purpose.

Materials

Extruded aluminium is generally Aluminium Alloy 6060.T6/T66, 6063.T6/T66, 6082.T6 to BS EN 755-9 and EN 12020 - 2.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25.

Gaskets are manufactured in accordance with BS ISO 3302 - 1.

For project specific assistance, please contact our specification team.

Environmental

Accredited to BRE Global's BES 6001 standard, we're committed to the responsible and sustainable sourcing of all our aluminium extrusions. Senior Architectural Systems is also fully compliant with BS EN ISO 9001 and BS EN ISO 14001.

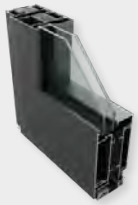
Manufactured from recycled aluminium, all our aluminium systems offer closed loop recycling and can be endlessly reused with no detriment to quality.

Finishes

Our state-of-the-art powder coating facility is one of the most advanced, and environmentally-friendly, in the UK. As well as providing standard RAL colours, our colour matching service also enables bespoke shades to be created which can then be specified as single or dual colours.

Specifiers can choose from standard matt, satin or gloss finishes or for a traditional metallic look, anodised and mill finishes are also available.

Commercial Low-Rise Options



PURe®

Pages 64 - 65

A patented thermally-enhanced slimline commercial door system for both medium and high traffic areas.

SPW501

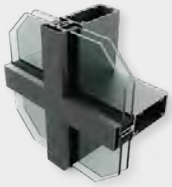
Pages 66 - 67

A high performance, thermally-broken polyamide aluminium framing system.

SD/SFG

Pages 68 - 69

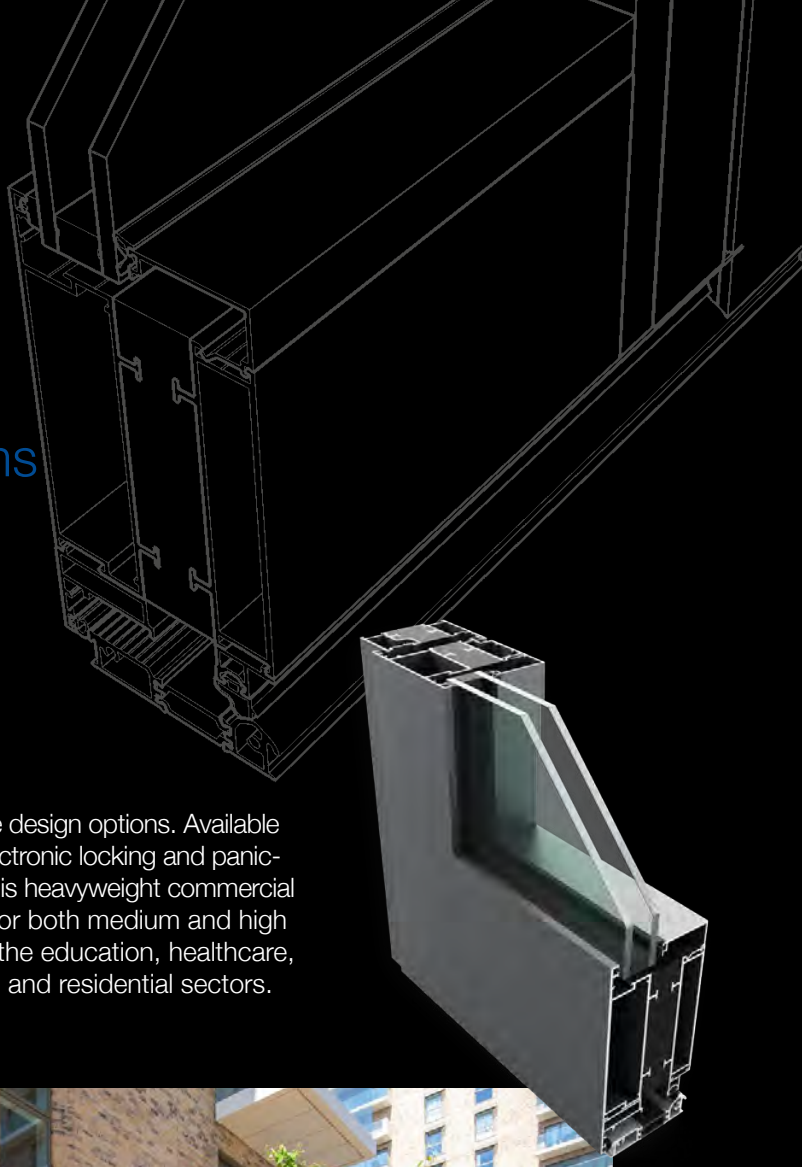
A robust shop front glazing system designed to provide a high-performance aluminium framing solution.



SCW

Pages 70 - 71

A robust, versatile and cost-effective semi-unitised aluminium curtain wall system.



Commercial Low-Rise systems

PURe® Commercial Door

Designed to perform up to a maximum leaf size of 1400mm x 3000mm and 180kg, the PURe® Commercial Door is our largest, heaviest and most robust door system. With our innovative patented PUR thermal break, it has impressive thermal-efficiency together and offer a range of flexible design options. Available in standard, electronic locking and panic-exit versions, this heavyweight commercial doors is ideal for both medium and high traffic areas in the education, healthcare, retail, business and residential sectors.

Kidbrooke Village
London

Design features:

- Robust, heavy and strong commercial door
- Designed to offer exceptional security to meet PAS 24
- Enhanced thermal performance thanks to the patented PUR thermal barrier
- Designed to perform up to a maximum leaf size of 1400mm x 3000mm and 180kg

Options:

- Double and triple glazing
- Available in standard, electronic locking and panic-exit versions
- Different thresholds available to meet the requirements of Approved Document M
- Wide choice of hardware and locking mechanisms

Technical

Typical sizes	Max door leaf width	1400mm
	Max door leaf height	3000mm
	Max door leaf width: electronic locking	1400mm
	Max door leaf height: electronic locking	2500mm
	Max door leaf width: panic exit	1350mm
	Max door leaf height: panic exit	2500mm
Glazing	Thickness	28mm - 60mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS6375 - 3
Average U-values	Single door. CEN standard: 1230mm x 2180mm	
	Double glazed unit	1.3 W/m²K
	Triple glazed unit	0.94 W/m²K
	Double door. CEN standard thermal enhancement: 2000mm x 2180mm (+25%)	
	Double glazed unit	1.3 W/m²K
	Triple glazed unit	0.89 W/m²K

Thermal performance:

Contact us for BREEAM® rating information.

Safety and security:

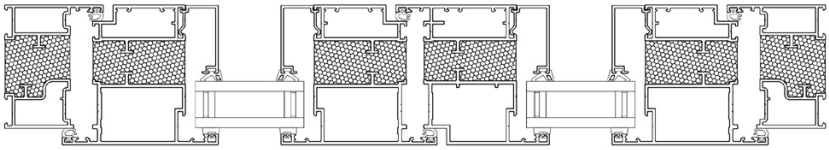
PAS 24 — Enhanced Security Performance — PAS 24:2016

Secured by Design — SBD — Police Preferred Specification

Construction:

PURe® is constructed using mitred corners, joined with crimped or mechanical cleats; alignment chevrons assist in clean, accurate mitres. A proprietary sealant is used on all metal joints in line with good practice. Automation solutions are also available.

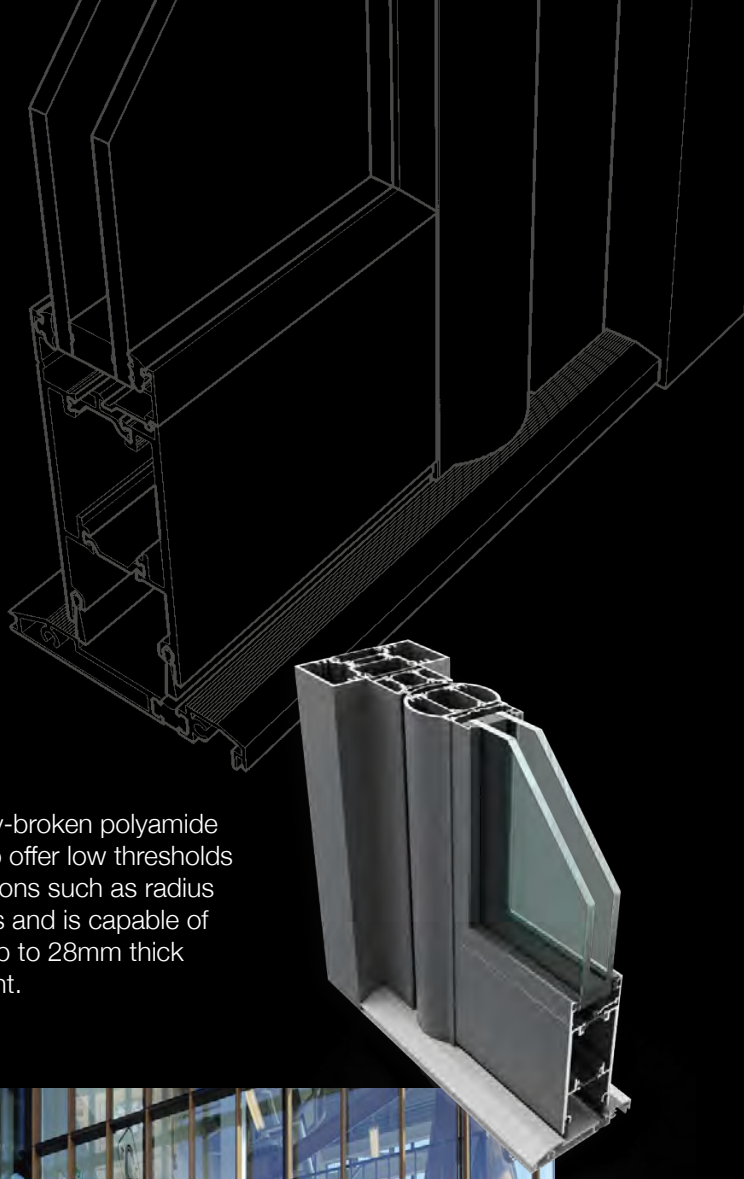
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Commercial Low-Rise systems

SPW501
Door Framing Solution



One of our most popular and versatile commercial products, our SPW501 system has been designed to provide a high-performance door and framing solution capable of being manufactured in single, double, and emergency door types. The thermally-broken polyamide framing system also offer low thresholds and a variety of options such as radius anti-finger trap stiles and is capable of accepting glazing up to 28mm thick depending on weight.

Clydeside Distillary
Glasgow

Design features:

- Thermally-broken polyamide aluminium framing system
- Integrates seamlessly with our SPW500 Shopfront system
- Easy to fabricate and install
- Features a wide clip and plate flush glazed mullion section, with a narrower 58mm clip and flush mullion offered to provide additional design option

Options:

- Able to receive glazing up to 28mm thick depending on weight
- Available in a range of configurations, including standard pivot and anti-finger trap doors

Technical

Typical sizes *For guidance only – when exceeded please consult our technical department*	Standard max door leaf width	1100mm
	Standard max door leaf height	2400mm
	Panic max door leaf width	1100mm
	Panic max door leaf height	2200mm
Glazing	Thickness	28mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS3675 - 3
Average U-values	Single door. CEN standard: 2000mm x 1280mm (+25%)	
	Double glazed unit	1.9 W/m²K

Thermal performance:

1.9 W/m²K

Contact us for BREEAM® rating information.

Safety and security:

PAS 24 – Enhanced Security Performance – PAS 24:2016

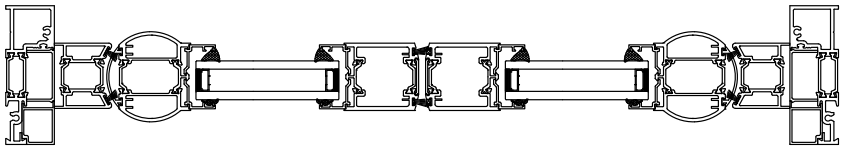
Secured by Design – SBD – Police Preferred Specification

Construction:

SPW501 is constructed with square cut components, mechanically jointed using self tapping screws into special cleats, and torsion bars are used for compressive strength. A proprietary sealant is used on all metal joints in line with good practice.

Automation solutions are also available.

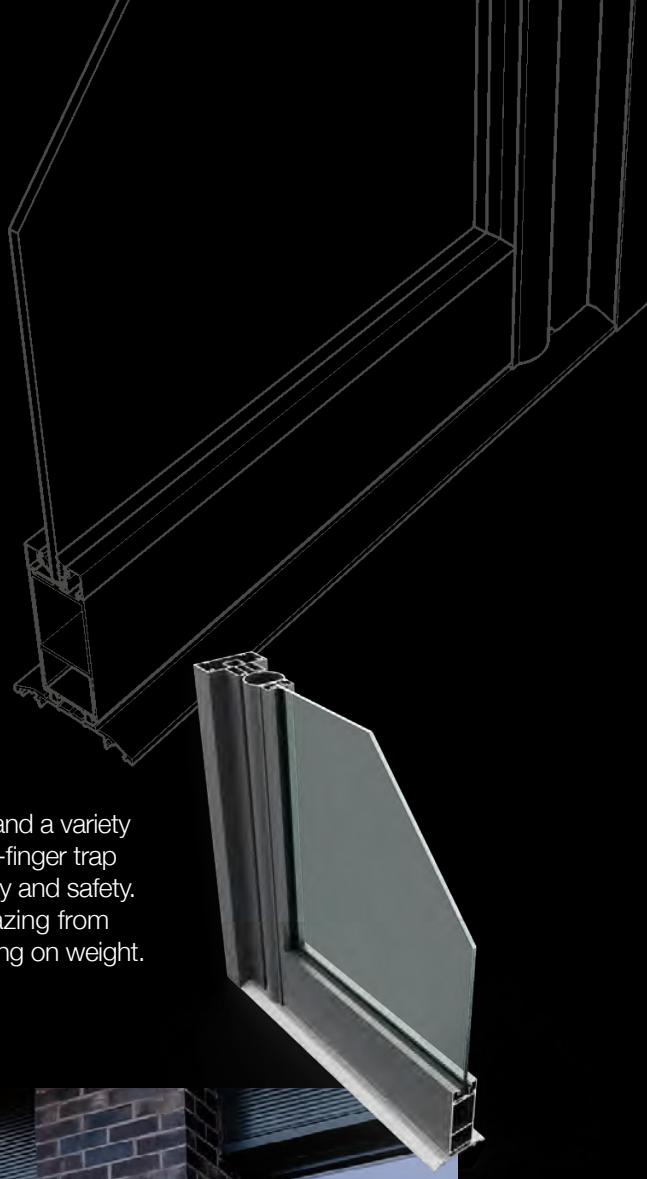
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Commercial Low-Rise systems

SD/SFG Ground Floor System



The SD/SFG system has been designed to provide a high-performance commercial door and framing solution. Flexible and suited to a wide range of commercial projects, it can be manufactured in single, double, and emergency door types.

It also utilises low thresholds and a variety of options such as radius anti-finger trap stiles for improved accessibility and safety. It is capable of accepting glazing from 6mm to 24mm thick depending on weight.

Pemberton Retail Park
Llanelli

Design features:

- Ideal for creating stylish and secure commercial shop fronts
- Able to receive glazing from 6 to 24mm thick
- Safe and secure to meet the requirements of PAS 24

Options:

- Choice of door configurations including single, double, emergency and panic exit door types
- Low thresholds for accessibility
- Anti-finger trap stiles

Technical

Typical sizes	Standard hook lock: max door leaf width	1100mm
	Standard hook lock: max door leaf height	2400mm
	Panic doors: max door leaf width	1100mm
	Panic doors: max door leaf height	2200mm
Glazing	Thickness	6mm - 24mm
Testing	Tested to	BS6375 - 1, BS6375 - 2, BS3675 - 3

Thermal performance:

Contact us for BREEAM® rating information.

Separate figures are available for Thermal U-values depending on configuration and glazing used.

Safety and security:

PAS 24 ENHANCED SECURITY PERFORMANCE PAS 24:2016

Secured by Design

SBD

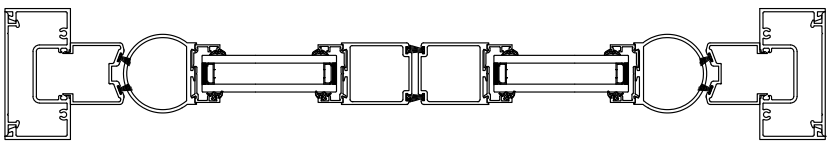
Police Preferred Specification

Construction:

SD/SFG is constructed with square cut components, mechanically jointed using self tapping screws into special cleats, and torsion bars are used for compressive strength. A proprietary sealant is used on all metal joints in line with good practice.

Automation solutions are also available

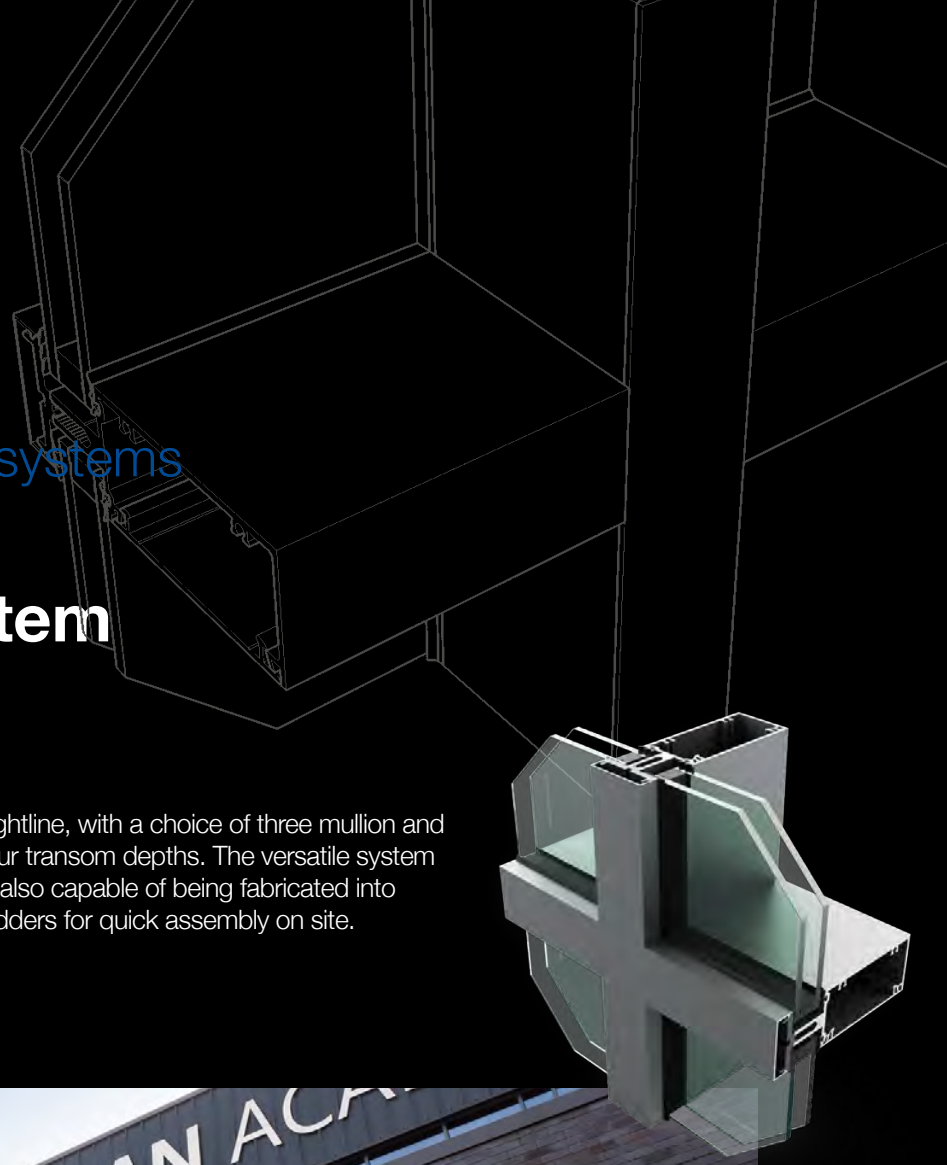
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Commercial Low-Rise systems

SCW
Curtain Wall System



SCW is a cost-effective semi-unitised, zone-drained and pressure equalized aluminium curtain wall system. Designed with flexibility in mind, it offers a slim 50mm sightline, with a choice of three mullion and four transom depths. The versatile system is also capable of being fabricated into ladders for quick assembly on site.

Dixon McMillan Academy
Bradford

Design features:

- A semi-unitised, zone-drained and pressure equalized aluminium system
- Slim 50mm sightline
- Can be fabricated into ladders for quick assembly on site

Options:

- Choice of 3 mullion and 4 transom depths
- Able to receive glass and infill panels from 6 to 28mm thick

Technical

Weather rating *BS6375 part 1*	Air permeability	600 Pa / Class C
	Water tightness	600 Pa
	Wind resistance	2000 Pa
Glazing	Thickness	6mm - 28mm

Thermal performance:

Contact us for BREEAM® rating information.

Separate figures are available for Thermal U-values depending on configuration and glazing used.

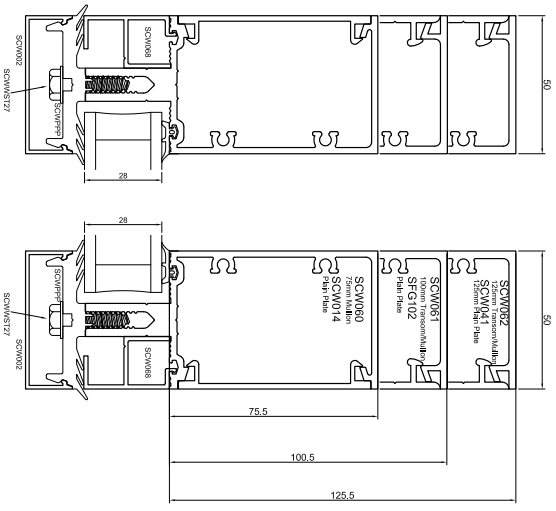
Construction:

SCW framing is constructed using mechanical methods at butt joints, assembling using stainless steel self-tapping screws into integral screw ports extruded into the body of the sections, directly through square cut adjoining component parts. A proprietary sealant is used on all metal to metal joints and gasket to gasket joints during assembly in line with good practice.

Vertical sections are designed to run through which enables individual panels to be made separately and assembled on site for large or multi-panel frames.

Sleeves are used for joint and sectional reinforcing or expansion joints on larger spans.

Technical drawings:

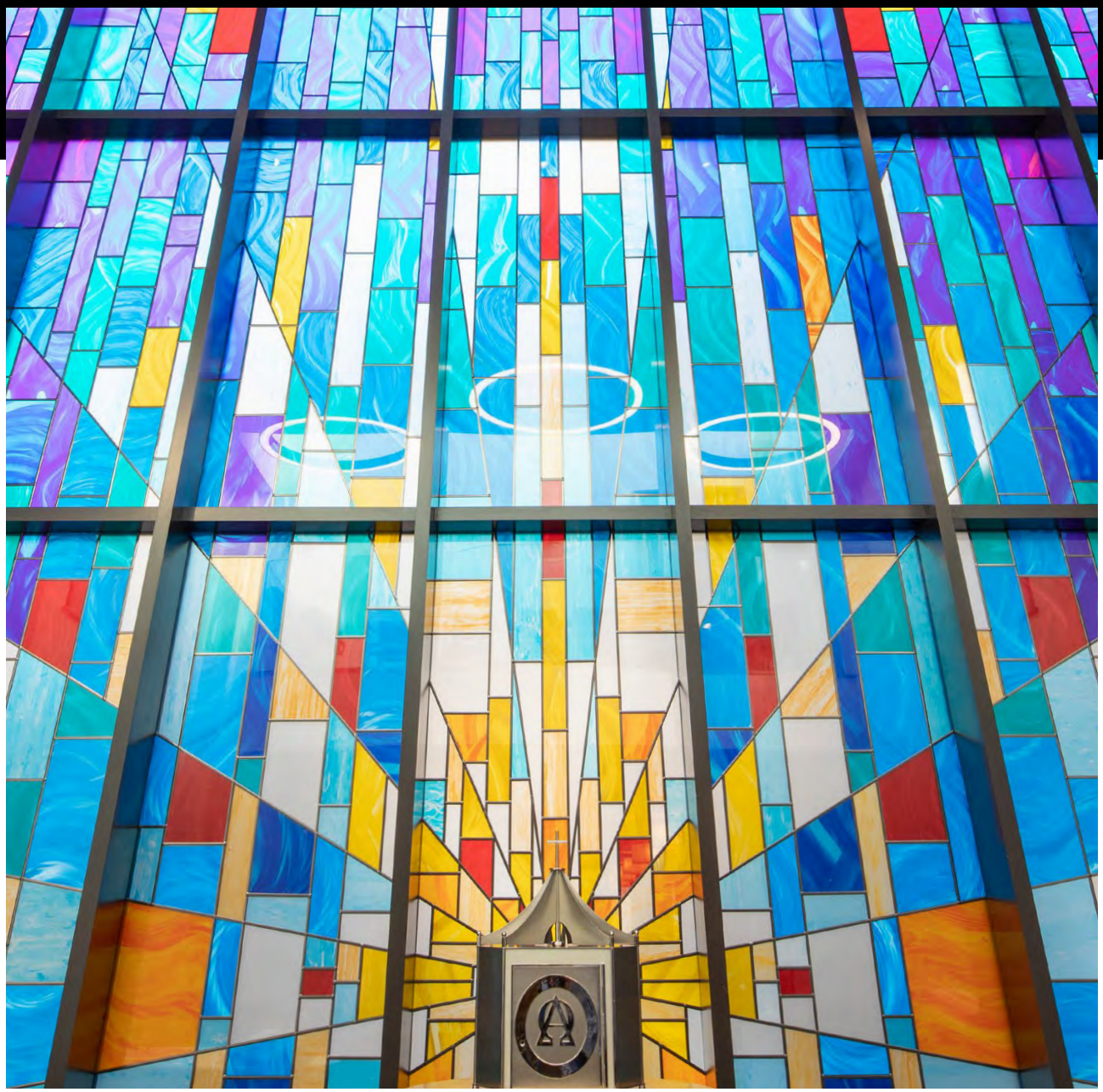


Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Product specification

Curtain Wall Systems

For eye-catching façades that are worth a second look, our innovative SF aluminium curtain wall systems are ideally suited to use on a wide range of buildings across the sectors. Our SF52 system is perfect for projects where slim sightlines and high thermal-efficiency are required, with our SF62 system specifically developed for use on projects where structural movement may be a challenge. Design flexibility is also built in, with a choice of drainage and capping options.



Materials

Extruded aluminium is generally Aluminium Alloy 6060.T6/T66, 6063.T6/T66, 6082.T6 to BS EN 755-9 and EN 12020 - 2.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25.

Gaskets are manufactured in accordance with BS ISO 3302 - 1.

For project specific assistance, please contact our specification team.

Environmental

Accredited to BRE Global's BES 6001 standard, we're committed to the responsible and sustainable sourcing of all our aluminium extrusions. Senior Architectural Systems is also fully compliant with BS EN ISO 9001 and BS EN ISO 14001.

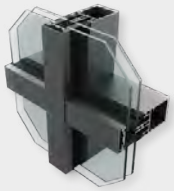
Manufactured from recycled aluminium, all our aluminium systems offer closed loop recycling and can be endlessly reused with no detriment to quality.

Finishes

Our state-of-the-art powder coating facility is one of the most advanced, and environmentally-friendly, in the UK. As well as providing standard RAL colours, our colour matching service also enables bespoke shades to be created which can then be specified as single or dual colours.

Specifiers can choose from standard matt, satin or gloss finishes or for a traditional metallic look, anodised and mill finishes are also available.

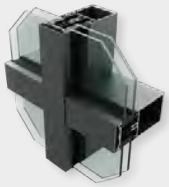
Curtain Wall Options



SF52

Pages 74 - 77

Our most popular and versatile aluminium curtain wall system.



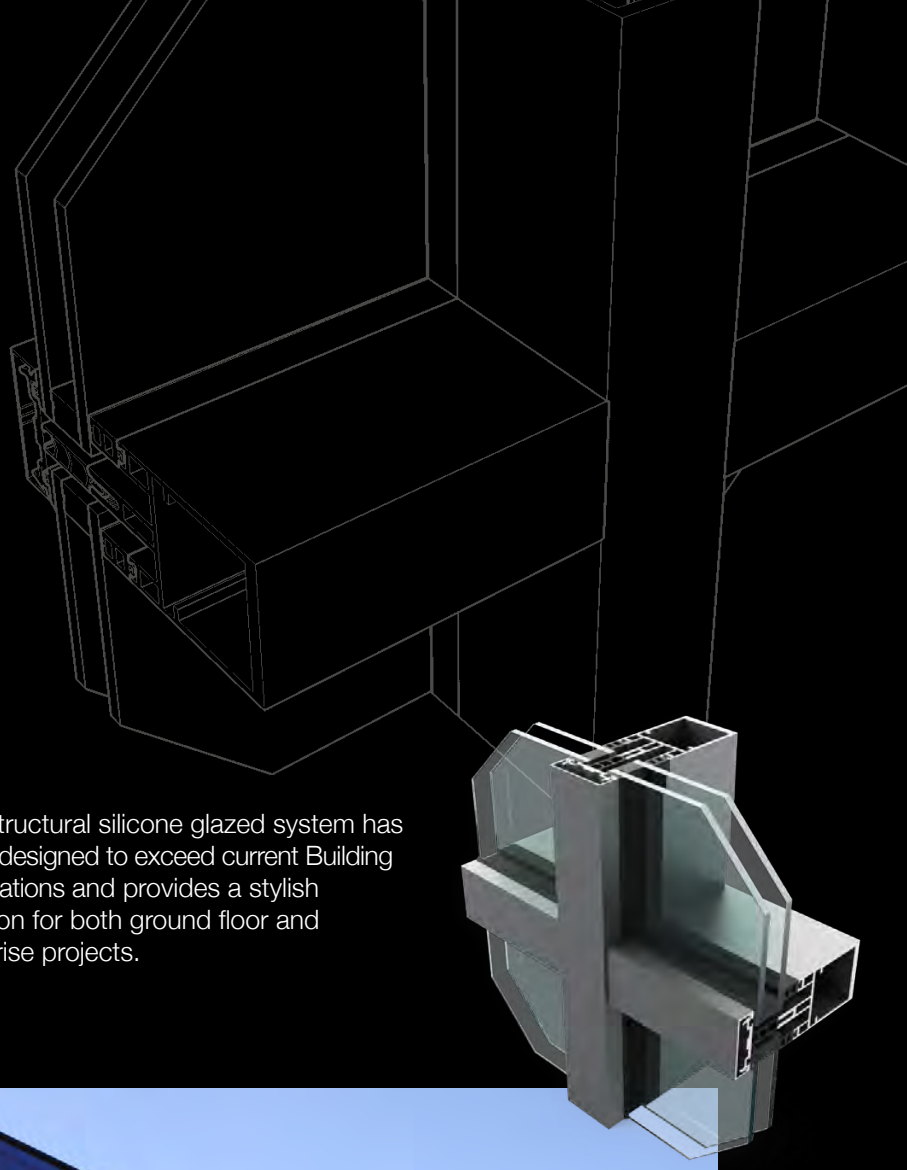
SF62

Pages 78 - 79

A high-performance aluminium curtain wall system, ideal for high-rise projects.

Curtain wall systems

SF52



Combining consistently slim sightlines with enhanced thermal performance and a wide range of design options, our SF52 aluminium curtain wall system is ideally suited for use across the sectors.

The structural silicone glazed system has been designed to exceed current Building Regulations and provides a stylish solution for both ground floor and high-rise projects.

New Walk
Leicester

Design features:

- Thermally enhanced
- Sleek and stylish with consistent slim 52mm sightlines
- Wide range of capping and drainage options available
- Fully weather tested

Options:

- Single, double and triple glazing
- Mullion and zone drained options available
- Can be fully capped, silicone glazed, vertical capped or horizontal capped

Technical

Weather rating *CWCT Sequence B*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Thickness	6mm - 50mm
Testing	Tested to	CWCT Sequence B & EN13830

Thermal performance:

Contact us for BREEAM® rating information.

Separate figures are available for Thermal U-values depending on configuration and glazing used.

Safety and security:

Secured by Design

Police Preferred Specification

Acoustic performance:

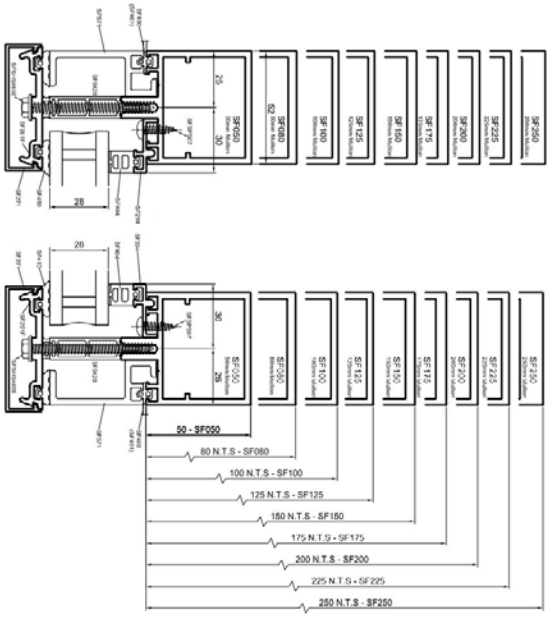
46dB reduction is achievable

Contact us to discuss your specific project requirements.

Construction:

The SF52 curtain wall system utilises square cuts throughout and is joined using a specially designed cleat and spring pin within the zone drained system. The mullion drained system uses a “lap” joint. A proprietary sealant is used on all metal to metal joints in line with good working practice. All internal gaskets are designed to mate with injection moulded corner pieces and are sealed at joints. Shear blocks and reinforcing sleeves are available.

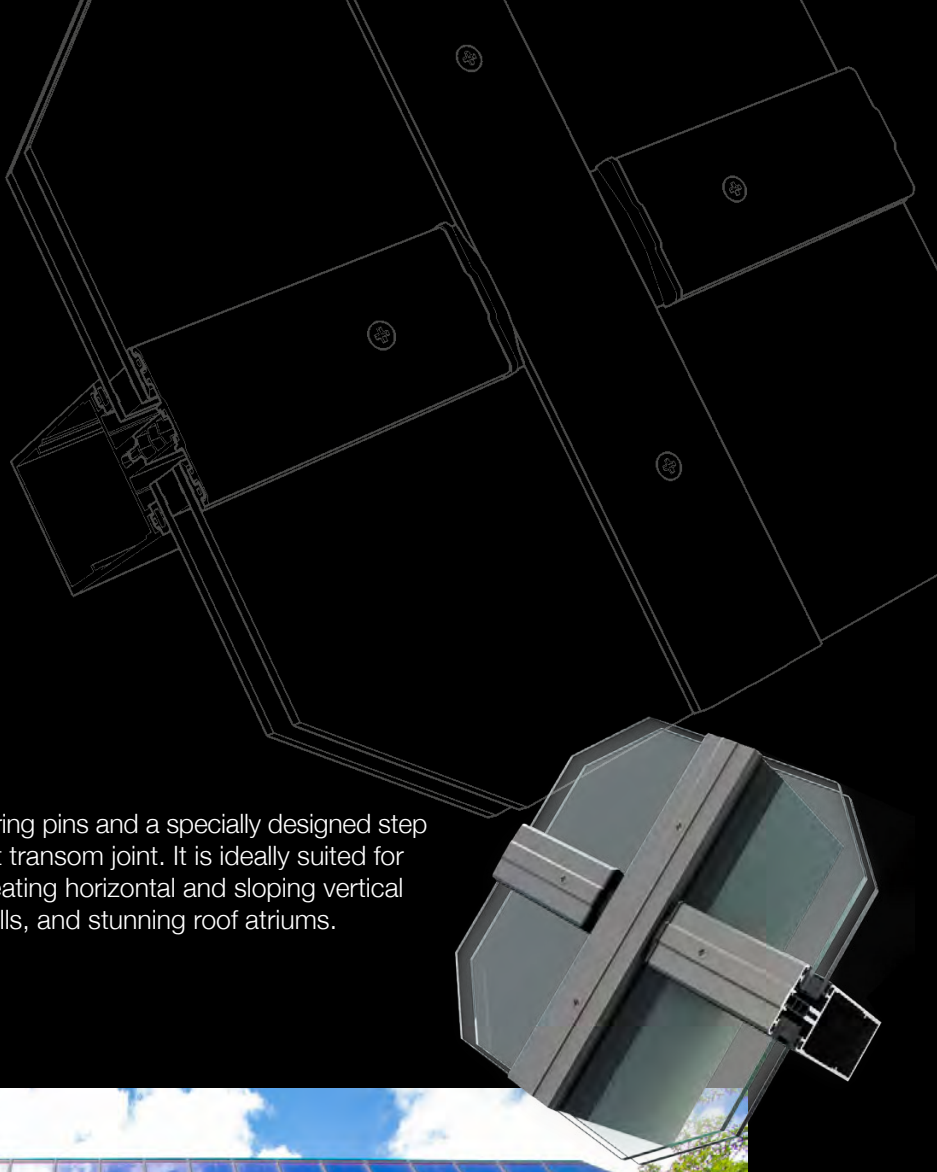
Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

Curtain wall systems

SF52 Sloped



Fully compatible with our SF52 aluminium curtain wall system and sharing many of the same aesthetic and performance characteristics, our sloped glazing system is a stick type front loaded system using spring pins and a specially designed step cut transom joint. It is ideally suited for creating horizontal and sloping vertical walls, and stunning roof atriums.

NUM Building
Sheffield

Design features:

- Suitable for creating varied pitches from 15 degrees from horizontal to 15 degrees from vertical
- Designed to integrate seamlessly with our SF52 system
- Excellent thermal performance

Options:

- Single, double and triple glazing
- Mullion and zone drained options available
- Can be fully capped, silicone glazed, vertical capped or horizontal capped

Technical

Weather rating *CWCT Sequence B / EN13830*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Thickness	28mm - 52mm

Thermal performance:

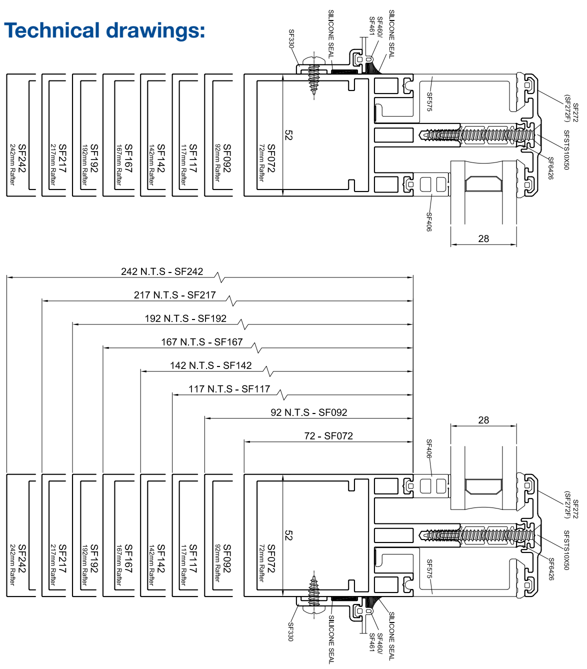
Contact us for BREEAM® rating information.

Separate figures are available for Thermal U-values depending on configuration and glazing used.

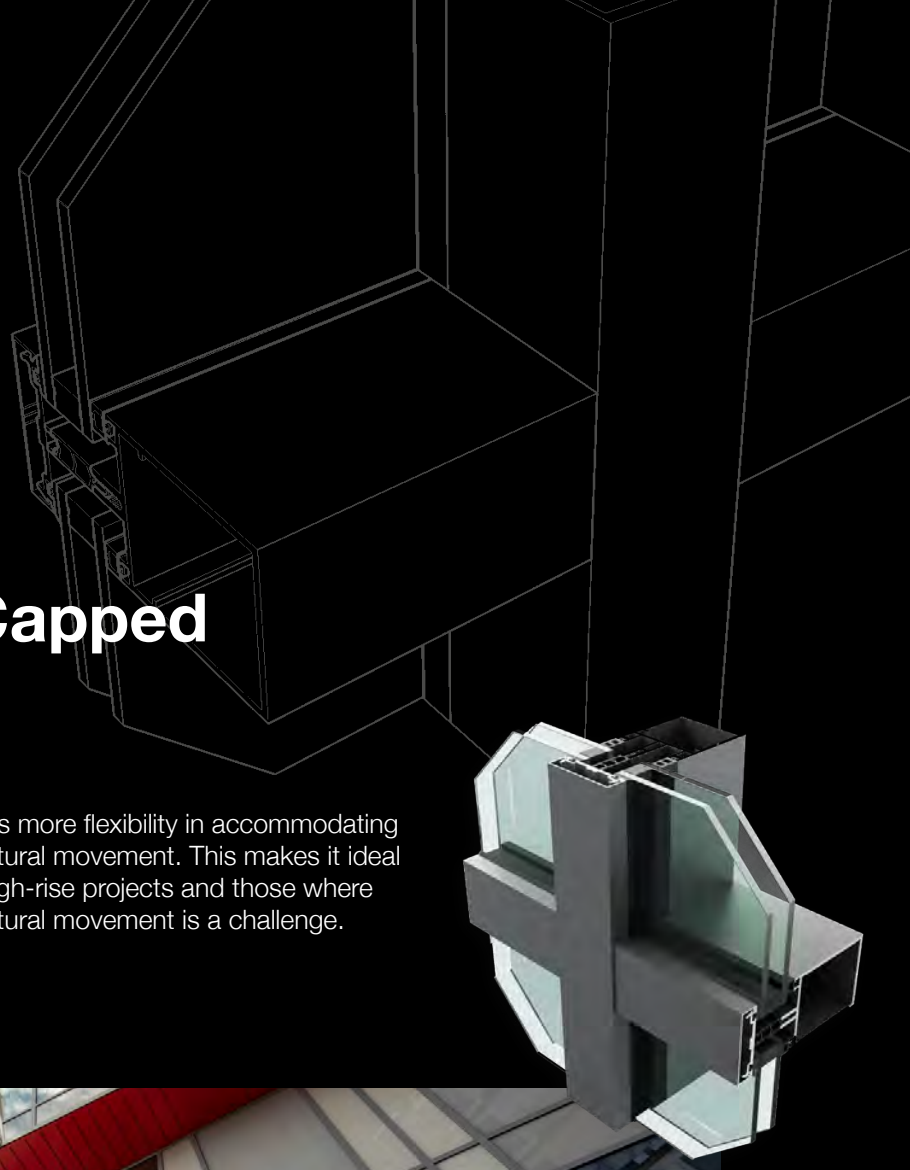
Construction:

The sloped glazed system uses a ‘lap’ joint between the transoms and mullions. All internal gaskets are designed to mate with injection moulded corner pieces and are sealed at joints. Shear blocks and reinforcing sleeves are available.

Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.



Curtain wall systems

SF62
Mullion Drained/Capped

SF62 is a stick type front loaded system using spring pins or a shear block and a lap cut transom. The system is very similar in design to our popular SF52 system, but has a wider 62mm box which allows more flexibility in accommodating structural movement. This makes it ideal for high-rise projects and those where structural movement is a challenge.

Brentford Football Stadium
Brentford

Design features:

- Visually similar to the slimline SF52 system
- Flexible design with a wide 62mm box to accommodate structural movement
- Excellent thermal performance
- Suitable for transom loads up to 750kg

Options:

- Single, double and triple glazing
- Mullion and zone drained options available
- Can be fully capped, silicone glazed, vertical capped or horizontal capped

Technical

Weather rating *CWCT Sequence B / EN13830*	Air permeability	600 Pa
	Water tightness	600 Pa
	Wind resistance	2400 Pa
Glazing	Thickness	12mm - 52mm

Thermal performance:

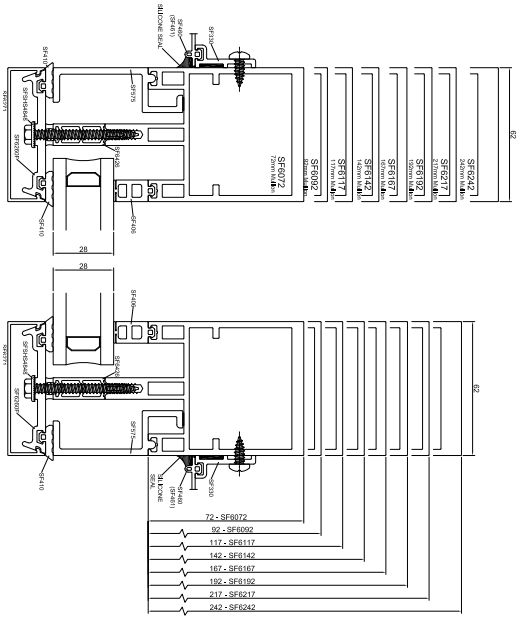
Contact us for BREEAM® rating information.

Separate figures are available for Thermal U-values depending on configuration and glazing used.

Construction:

The SF62 curtain walling range is a mullion drained system utilising a “lap” joint used in conjunction with a spring pins or shear blocks, depending on he connection type and infill weight required. All internal gaskets are designed to mate with injection moulded corner pieces which are sealed at joints. Reinforcing sleeves, steel and back boxes can be used to strengthen mullions and achieve longer spans. For specific construction details, please refer to the technical manuals.

Technical drawings:



Please contact our national team of architectural advisors for advice on product suitability, calculations and NBS or bespoke specifications.

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