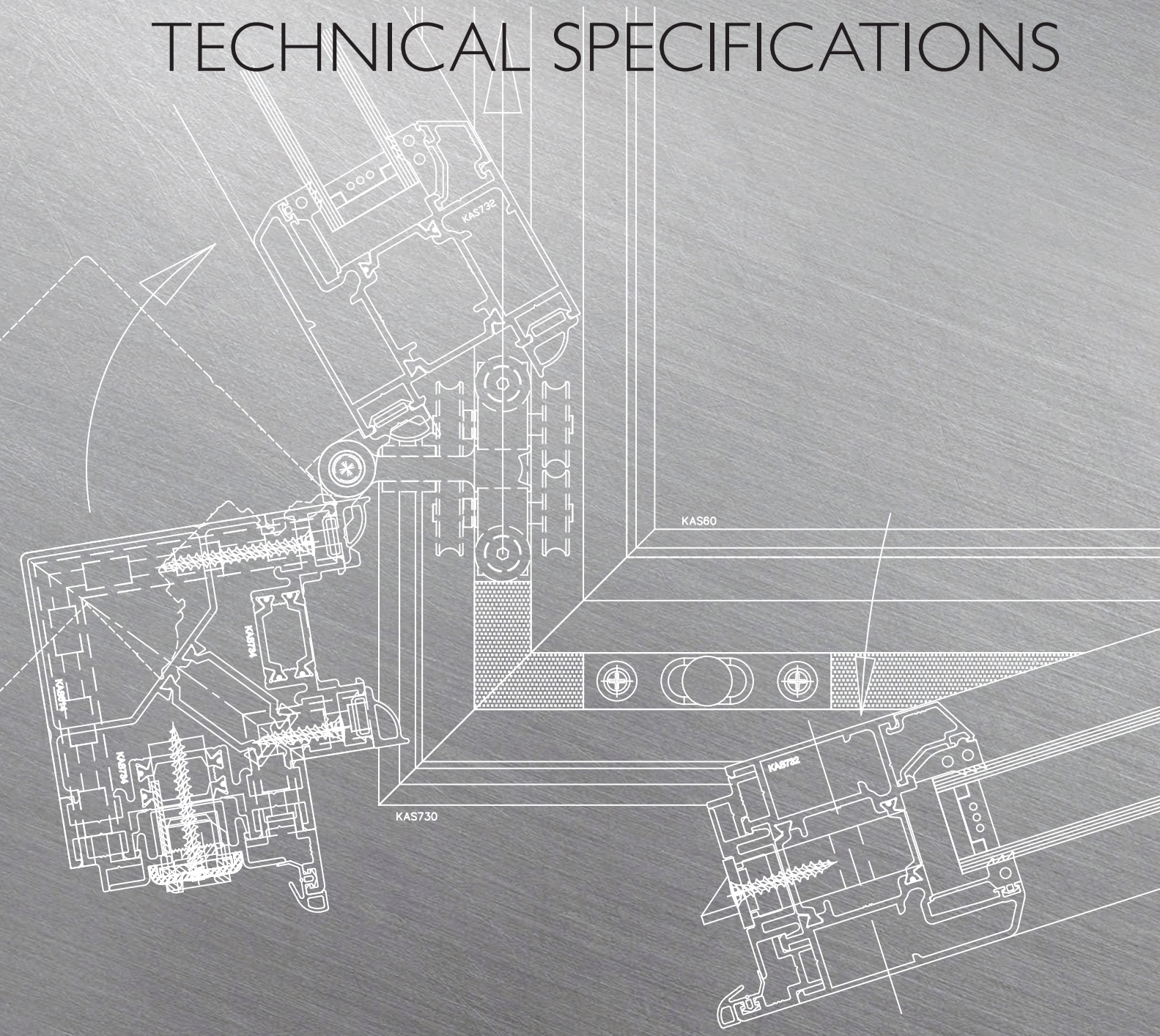
KESTREL
ALUMINIUM SYSTEMS

KESTREL SYSTEMS
TECHNICAL SPECIFICATIONS



KESTREL
ALUMINIUM SYSTEMS

Kestrel Systems Technical Specifications / Contents

Kestrel Aluminium Systems

Established in 1989 we have grown from strength to strength to become a reputable nationwide fenestration systems house developing commercial and domestic products to meet the ever-changing needs of the customer.

WINDOW SYSTEMS

The Kestrel suite of window systems is designed to create contemporary aesthetics for any building using slim profiles with design options that offer stylish choices for any given window configuration. All our systems are secure and energy-efficient meeting the exacting standards of Document L building regulations. Systems can be specified as single or dual colour powder coated to provide personalisation or to conform to design restrictions and regulations. All are fully compatible with our wider product portfolio and are complemented with a full range of hardware and accessories.

KESTREL
ALUMINIUM SYSTEMS

DOOR SYSTEMS

We offer a comprehensive range of door suites for the commercial and residential marketplace. The shopfront system has sections to create both flush and bead glazed frames to suit all applications. The main framing sections are 100 x 45mm for both single and double glazed options and are designed to ensure straightforward and robust fabrication that can be easily glazed on-site. There is a wide choice of sections to make any style of door leaf including auto swing, manual and automatic sliding, sliding folding and rebated.

Our residential door systems include a rebate door with fixed sidelights or fan lights that can be incorporated into the design. A Sliding Patio Door with narrow profile faces which creates a dramatic removable wall providing uninterrupted views. The Folding Sliding Door completes the range enabling the doors to fold flush against each other, providing seamless lines and maximum visibility. A corner option features a compact corner post that folds neatly with the doors as they are stacked.

GLAZING BARS

The roof glazing bar range is designed in accordance with BS5516 and can be specified as standard or thermally improved versions. Light, standard and heavy-duty glazing bars are available. Square and sloping caps are designed to work with common infill materials from 6mm glass through to multi-wall polycarbonate sheet and insulating glass units. The system can be used in vertical as well as sloped applications. The range of profiles includes sheet closures, eaves and end fillers, adjustable wallplate, rafter bars, fixing plates and end and glass stops.

FLAT ROOFLIGHT SYSTEM

A contemporary but practical Flat Rooflight designed to meet the needs of the commercial and residential marketplace using sustainable materials which deliver superior aesthetics and crisp clean lines. Once installed the secure rooflight maximises natural light providing an elegant appeal to any office, school or hotel whilst offering a steady airflow for ventilation purposes.

LANTERN ROOFLIGHT SYSTEM

Our Lantern Rooflight System has been designed to make fabrication simple, stress and fuss-free to meet the needs of the modern building. Fully thermally broken with no compound mitre cuts our Lantern Rooflight System can be easily screwed together. Corner joints are performed with mechanical cleats which with the aid of punch tooling provide a strong, neat and secure joint to each of the corners of the lantern rooflight. The jointing system makes site assembly possible meaning transportation and manual handling of the materials onto the roof become easier.

KESTREL
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CURTAIN WALLING

The Curtain Walling System is an economical and attractive facade cladding for buildings where good weather and thermal performance is required. The system is suitable for low and medium rise applications and has a range of mullion and transom depths from which to select. It is designed to be zone drained and has been CWCT tested, providing important thermal performance from the use of co-extruded PVCu pressure plates. It will accommodate glazing options from 6mm to 28mm, and is fully compatible with our window and door suites. As with our shopfront system, a full range of accessories is also available.

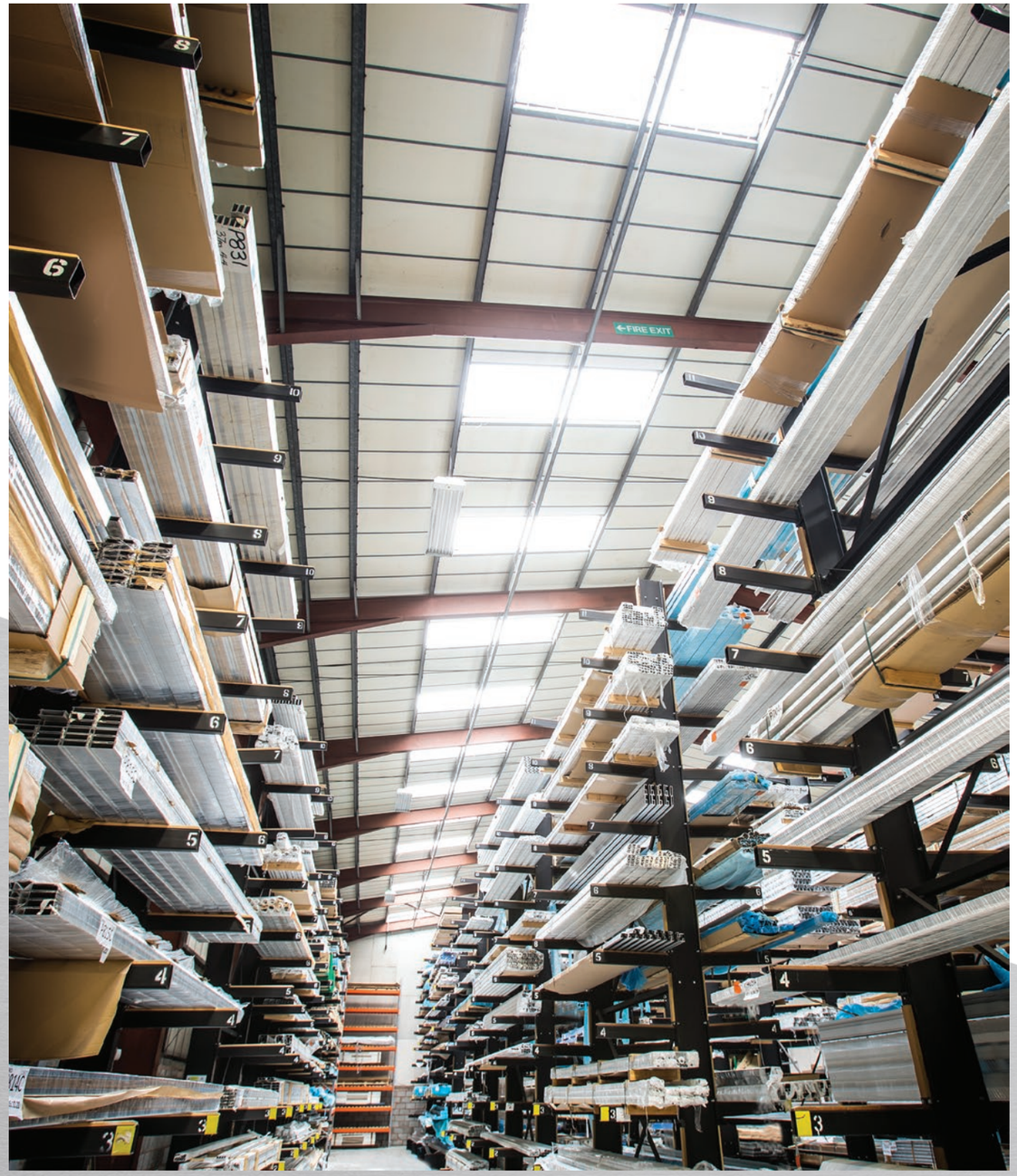
STANDARD SECTIONS

We complement our aluminium systems with a full range of standard sections that includes angles (equal and unequal), channels, flat bars, hollow box sections and T-bars. We also supply a wide range of aluminium sheet.

A FLEXIBLE SOLUTION FOR ALUMINIUM SYSTEMS

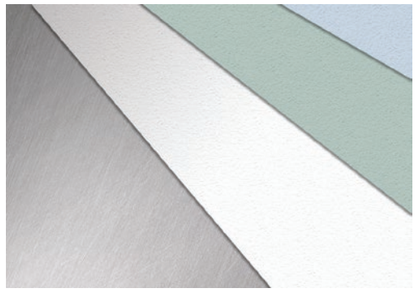
The accessories we stock mean that Kestrel is not just about aluminium sections. We stock a comprehensive range of hardware to meet all the security and safety requirements of today's market.

KESTREL
ALUMINIUM SYSTEMS



STOCK RANGE

An extensive range of sections for shopfronts, commercial doors, curtain-walling, windows and glazed roofs, standard sections and sheet material is available. We offer alternative lengths for most of our sections to ensure the customer is able to choose the most economical options for any order. Alternative and half and quarter lengths mean we offer up to six options on many sections.

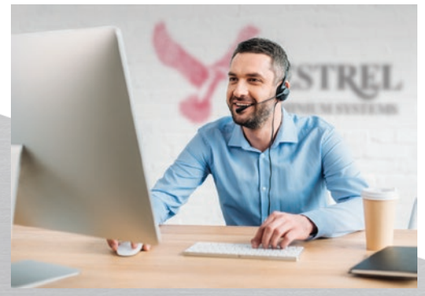


FINISHES

Most sections are stocked in mill finish, natural anodised and white powder coated. We have our own powder coating facility so can offer industry leading turn-around times on a vast range of standard colours. This gives us the control to ensure a high-quality finish and your material when you need it.

DELIVERY

Using our own fleet of dedicated vehicles and drivers, we provide an efficient delivery service to all parts of the country from our central base. We do not work to a rigid delivery schedule, preferring instead to co-ordinate with the needs and demands of our customers. This means our deliveries are generally made within days, even for powder coated material, accommodating even the most stringent requirements.



TECHNICAL SUPPORT

The technical team continuously develops the systems to ensure new and existing products meet and exceed the demands of the market. We offer knowledgeable guidance and advice at all stages, from initial specification, to U-value and wind-load assessment, through to workshop and on-site support. We have in-house estimating support which is available to our customers to assist them in the efficient creation of quotations and cost breakdowns. It produces detailed drawings, optimised cutting reports, glass sizes and is supported by our experienced and dedicated team who provide demonstrations and training.

Technical Specification

60mm Window System

TILT BEFORE TURN

PARALLEL OPENING

The thermally efficient 60mm Window System is designed for both residential and commercial application such as homes, schools, offices and leisure facilities.

The system is fully compatible with the full suite of Kestrel products and can be used in conjunction with the Curtain Walling and Thermal Framing Systems offering a complete glazing solution for new builds and refurbishment projects.

Design Options

- Single or dual colour
- Double or triple glazing
- Top, bottom or side-hung
- Parallel opening
- Pressure fit bead
- Tilt before turn
- Fixed light
- Cill options

Performance

- Air permeability: 600Pa
- Water ingress: 600Pa
- Wind resistance: 2000Pa
- Safety requirement: 3000Pa

TECHNICAL SPECIFICATION

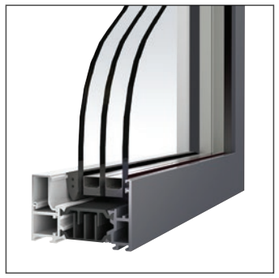
Application	Residential new build, refurbishment and light commercial.			
Window types	Open out casement (top, bottom or side-hung), pressure fit, parallel opening, tilt before turn.			
	Casement	**Pressure Fit**	**Parallel Opening**	**Tilt Before Turn**
Maximum window opening width*	1000mm	1000mm	1500mm	1600mm
Maximum window opening height*	2000mm**	2000mm**	2200mm	1800mm
Internally beaded option	Yes	No	Yes	Yes
Externally beaded option	Yes	Yes	No	No
U-Value (using BS EN 14351 window arrangement)	1.7/WERC	1.7 W/m2K	1.7 W/m2K	1.7/WERC
Thermal performance	Polyamide thermally broken profiles - Document L1A, L1B/L2A, L2B compliant.			
Cills	Range of options including one piece polyamide.			
Jointing	Mechanical corner and transom / mullion jointing.			
Glazing options	Will accept double or triple IGU and infill panels 28 – 32mm thick.			
Performance	Water ingress 600Pa Air permeability 600Pa Wind resistance 2000Pa Safety requirement 3000Pa			
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.			
Single or dual colour profiles	Option			
Trickle vents	Standard or slimline			
Handles	Locking , non locking. Black, White, Silver.			
Security	Multi-point bi-part espagnolette locking. PAS24 compliant.			
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS 4873:2016 *Specification for aluminium alloy windows and doorsets.* BS EN 14351-1:2006+A2:2016 *Windows and doors, performance characteristics.* BS EN ISO 10077-2:2017 *Thermal performance of windows, doors and shutters.* PAS 24:2016 *Enhanced security performance requirements for doorsets and windows.*			

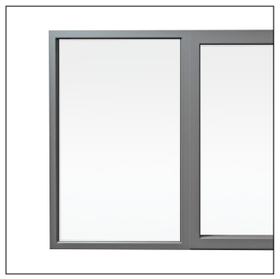
** Subject to use of appropriate hardware and site conditions.*

*** With Sterling hinges*

Technical Specification

70mm Window System





Designed for both residential and commercial applications, the thermally efficient 70mm Window System has a wealth of design options making it ideal for use in homes, schools, offices and leisure facilities. It can be used in conjunction with our Curtain Walling and Framing Systems offering a complete glazing solution for both new build and refurbishment projects.

Design Options

- Single or dual colour
- Open out casement (top or side-hung)
- Individual or composite window styles
- Fixed light
- Cill options
- Double or triple glazing
- Opening restrictors

Performance

- Window tested to UK exposure category 1600
- Water tightness: 600Pa
- Air permeability: Class 4
- Wind resistance: Class C4
- Safety requirement: 2400Pa

TECHNICAL SPECIFICATION

Application	Residential new build, refurbishment and light commercial.
Window types	Open out casement (top or side-hung), fixed light.
Maximum window opening width*	Side hung 1000mm • Top hung 1000mm
Maximum window opening height*	Side hung 1500mm • Top hung 1200mm
Frame profiles	Profiles 70mm deep. 43mm sightlines on fixed profiles. Odd leg, Curtain Wall.
Corner posts	90° and 135°
Cills	Range of options including one piece polyamide.
Jointing	Mechanical corner and transom/mullion jointing.
Thermal performance	Polyamide thermally broken profiles - Document L1A, L1B/L2A, L2B compliant.
U-Value	As low as 1.2 W/m^2K.
Performance	Window tested to UK exposure category 1600 Water tightness 600Pa Air permeability Class 4 Wind resistance Class C4 Safety requirement 2400Pa
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.
Single or dual colour profiles	Option.
Glazing options	Will accept double or triple IGU and infill panels 24 – 40mm thick.
Square beaded	Internally.
Hardware	Nominal 13.5mm cavity accepts most proprietary fittings. Non-handed friction hinges.
Trickle vents	Standard or Slimline
Locking handles	Inline or offset– Black, White, Grey, Graphite, Silver and Gold.
Security	Multi-point bi-part espagnolette locking, PAS24 compliant.
Opening restrictors	Child and Health Care.
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS 4873:2016 *Specification for aluminium alloy windows and doorsets.* BS EN 14351-1:2006+A2:2016 *Windows and doors, performance characteristics.* BS EN ISO 10077-2:2017 *Thermal performance of windows, doors and shutters.* PAS 24:2016 *Enhanced security performance requirements for doorsets and windows.*

** Subject to use of appropriate hardware and site conditions.*

Technical Specification

75mm Window System

The thermally efficient 75mm Window System is designed to meet high performance requirements in both commercial and domestic applications such as homes, schools, offices, healthcare and leisure facilities.

Window and glazing combinations can be specified to provide a U-value as low as 1.2W/m^{2}K *. Options can be selected between modular thermal levels to enable compliance with project and regulatory requirements, with the benefits of value engineering.

The system is fully compatible with the full suite of Kestrel products and can be used in conjunction with the Curtain Walling and Thermal Framing Systems to offer a complete glazing solution.

**Based on standard 4-20-4 1.0W/m^{2}K DGU, Swisspacer Ultimate, 1230 x 1480 opener next to fix as per approved Doc L requirements.*

Design Options

- 24-32mm glazing infills
- Open out side hung and top hung
- Open in tilt before turn (tilt only and turn only)
- Glazed in, or glazed out fixed lights conforming to requirements of PAS24
- Modular thermal performance levels
- Cill options
- Single or dual colour

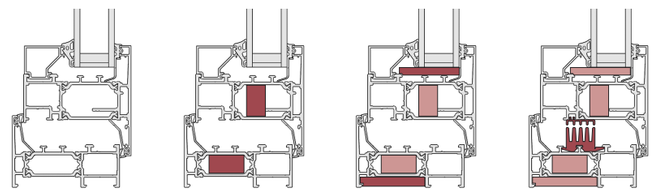
Performance

	Open Out Casement.	Open in / TBT.
• Air permeability	600pa / Class 4	600pa / Class 4
• Watertightness	600pa / 9a	1350pa / E1350
• Wind resistance	2000pa / Class 5	2000pa / Class 5

TECHNICAL SPECIFICATION

Application		Residential, new build and refurbishment.	
Window types		Open out side hung & top hung casements, open in tilt before turn, tilt only & turn only, fixed lights.	
Maximum sash sizes (weight)		**Open Out Casement**	**Open In Tilt Before Turn**
Top Hung		1686mm x 1550mm (100kg)	
Side Hung		890mm x 1686mm (55kg)	
Tilt Before Turn			1436mm x 2436mm (150kg)
Side Hung - Open In			1436mm x 2436mm (150kg)
Bottom Hung - Open In			1436mm x 2436mm (150kg)
Frame profiles		Profiles 75mm deep. Odd leg, Curtain Wall	
Corner post		90°	
Cills		Wide range including one piece & two piece options.	
Jointing		Mechanical corner and transom/mullion jointing	
Thermal Performance (U-Value)		**Open Out Casement ***	**Open In Tilt Before Turn ***
Modular Thermal Enhancements	**Meso**	1.5	1.4
(see diagrams for Open Out	**Thermo**	1.4	1.3
Casement below)	**Exo**	1.3	1.2
	Iono	1.2	
Performance (BS6375-1:2009)		Air permeability 600pa / Class 4 Watertightness 600pa / 9a Wind resistance 2000pa / Class 5	Air permeability 600pa / Class 4 Watertightness 1350pa / E1350 Wind resistance 2000pa / Class 5
Finishes		Mill finish Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See our website for colour range available.	
Single or dual colour profiles		Option	
Glazing options		Will accept IGU and infill panels 24 – 32mm thick	
Hardware / Accessories		Concealed multi-point locking hardware - Open In Tilt Before Turn Bi-parting shoot bolt locking hardware - Open Out Casement Standard and Heavy Duty friction stays	
Handles		Locking – Black, White, Satin Chrome, Polished Chrome, Brushed Steel	
Trickle vents		EA2792 and EA4069	
Design standards		BS EN 12020-2 *Aluminium and aluminium alloys, extruded precision profiles* BS 3987 *Specification for anodic oxide coatings* BS EN 12206-1 *Paints and varnishes, coating of aluminium and aluminium alloys* BS 6375 1+A1 *Performance of windows and doors. Classification for weathertightness* BS 6375 2 *Performance of windows and doors. Classification for operation and strength characteristics* BS 6375 3+A1 *Performance of windows and doors. Classification for additional performance characteristics* PAS 24 *Enhanced security performance requirements for doorsets and windows*	

**** Vent, mullion and fixed glazing,***
1230mm W x 1480mm H with 1.0 w/m^{2}k centre pane DGU. 4-20-4 Swisspacer Ultimate.



Technical Specification

Folding Sliding Window System

Our Folding Sliding Window System transform the appearance and performance of any home.

Windows fold away neatly and easily to maximise natural light, ventilation, and views. There is a choice of opening configurations, with sashes folding internally, externally or split opening.

The window is designed for residential and commercial applications and is fabricator friendly to make installation on-site as easy as possible.

Configurations

- Open in or out
- Left, right, split opening

Design Options

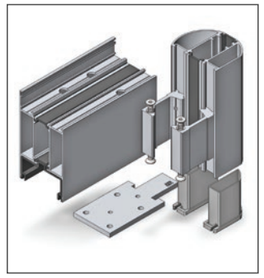
- Single or dual colour powder coated
- Double or triple glazing
- Flush or rebate track
- Bead design options
- Cill options
- Hardware colour options

TECHNICAL SPECIFICATION

Application	Residential new build, refurbishment and light commercial.
Maximum window opening width	1000mm
Maximum window opening height	2700mm
Jointing	Mechanical
Glazing options	Will accept double or triple IGU and infill panels 28 – 32mm thick.
Beading	Internal
Cills	Design coordinated to rest of residential range.
Thermal performance	Polyamide thermally broken profiles - Document L1A, L1B/L2A, L2B compliant.
U-Value	1.6W/m2K
Security	Multi-point bi-part espagnolette locking, PAS24 compliant.
Handles	Locking, non locking. Black, White, Silver.
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.
Single or dual colour profiles	Option
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS 4873:2016 *Specification for aluminium alloy windows and doorsets.* BS EN 14351-1:2006+A2:2016 *Windows and doors, performance characteristics.* BS EN ISO 10077-2:2017 *Thermal performance of windows, doors and shutters.* PAS 24:2016 *Enhanced security performance requirements for doorsets and windows.*

Technical Specification

Thermal Commercial Door System



A thermally efficient product designed for installation in schools, offices and commercial buildings where enhanced building regulations and security standards are required. This fully compliant Thermal Commercial Pivot Door is designed for high traffic footfall and tested to PAS24 security standards.

The DDA compliant door system is compatible with the Kestrel Thermal Framing and Window Systems providing commonality of design and an all-in-one solution.

Slimline profiles minimise sight-lines whilst ensuring excellent thermal performance all year round.

PAS24 Configurations
- Single and double door
- Single door access control
- Single door panic hardware

Design Options
- Single and dual colour
- Double and triple glazing
- Manual pivot door
- Automatic pivot or sliding door
- Single or multipoint lock
- Range of DDA compliant thresholds
- Anti-finger-trap stile

TECHNICAL SPECIFICATION

Application	Commercial, new build and refurbishment.	
	Single Door	**Double Door**
Maximum width	1100mm	2200mm
Maximum height	2500mm	2500mm
Jointing	Mechanical	Mechanical
Internally beaded option	Yes	Yes
Glazing options	Will accept insulating glass units and infill panels 28 – 47mm thick.	
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.	
Single or dual colour profiles	Option	
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS 4873:2016 *Specification for aluminium alloy windows and doorsets.* BS EN 14351-1:2006+A2:2016 *Windows and doors, performance characteristics.* BS EN ISO 10077-2:2017 *Thermal performance of windows, doors and shutters.* PAS 24:2016 *Enhanced security performance requirements for doorsets and windows.*	

Technical Specification

Ground Floor Treatment and Commercial Door System

A comprehensive Ground Floor Treatment System for application in high traffic buildings such as schools, leisure facilities, retail units and offices.

The modern design, clean lines, ease of fabrication and installation and range of glazing options make this system a popular choice where wide glazing spans are required.

Configurations

- Pivot
- Slide
- Automated
- Rebated
- Single door: open in or open out
- Double door: open in or open out

A comprehensive range of profiles and accessories are available to enable these to be achieved.

Design Options

- Single colour powder coated
- Single or double glazed options
- Economy profiles

TECHNICAL SPECIFICATION

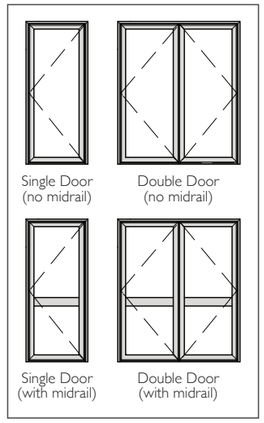
Application	Commercial new build and refurbishment.		
	Framing	**Single Door**	**Double Door**
Maximum width	*	1100mm	1100mm
Maximum height	*	2500mm	2500mm
Jointing	Mechanical	Mechanical	Mechanical
Internally beaded option	Yes	Yes	Yes
Externally beaded option	Yes	Yes	Yes
Glazing Options - Single glazing	6mm - 11mm	6mm - 11mm	6mm - 11mm
Glazing Options - Double glazing	24mm	24mm - 28mm	24mm - 28mm
U-Value **	3.5 W/m^{2}K	3.5 W/m^{2}K	3.5 W/m^{2}K
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.		
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys*		

** Size limitations subject to site conditions.*

*** Values stated using appropriate glass*

Technical Specification

Thermal Rebate Door System



The Kestrel Thermal Rebate Door is designed for residential and light commercial use. The suite of profiles will allow construction of single and double door types. The system is internally beaded as default. An externally beaded door leaf could be constructed if required by simply reversing the stiles/rails.

Designed as part of our residential suite of products the rebate door system utilises the same profiles to offer commonality of design. Fixed sidelights or fan lights can be incorporated into the design offering the option for increased ventilation and natural light. The system is suitable for use as either an entrance door to the home or as French doors leading to the garden. Doors can be single or double, opening in or out, to meet the project specification.

Design Options

- Single or dual colour
- Open in or out
- Single or double doors
- Threshold and cill options
- Midrail options
- Hardware to mirror Folding Sliding Door

Performance

- Thermal transmittance: 1.6 W/m^{2}K
- Water tightness: 100 pa
- Air permeability: 300 pa
- Wind resistance: 1200 pa

TECHNICAL SPECIFICATION

Application	Residential new build, refurbishment and light commercial.	
	Single Door	**Double Door**
Maximum door leaf width	1000mm	1000mm
Maximum door leaf height	2700mm	2700mm
Maximum door leaf weight	100kg	100kg
Jointing	Mechanical	
Internally beaded option	Yes	
Glazing options	Will accept insulating glass units and infill panels 28 – 32mm thick	
U-Value	1.6 W/m^{2}K	
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.	
Performance	Thermal transmittance: 1.6 W/m^{2}K Water tightness: 100 pa Air permeability: 300 pa Wind resistance: 1200 pa	
Single or dual colour profiles	Option	
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS 4873:2016 *Specification for aluminium alloy windows and doorsets.* BS EN 14351-1:2006+A2:2016 *Windows and doors, performance characteristics.* BS EN ISO 10077-2:2017 *Thermal performance of windows, doors and shutters.* PAS 24:2016 *Enhanced security performance requirements for doorsets and windows.*	

The system is designed to accept, 24mm or 28mm thick (DG) IGU's or infill panels

Technical Specification

Folding Sliding Door System

Designed for both the domestic and commercial market our Folding Sliding Door System is made to bespoke requirements in numerous design configurations.

Features include multipoint locking and shoot bolts as standard, and units will accept toughened or laminated safety glass in thicknesses of 24mm-32mm. A low threshold option with a 13mm step can be specified. A choice of slimline handle styles is also available to ensure neat door stacking and effective use of space.

Utilising the popular bottom-hung arrangement for efficient operation, stainless-steel wheels which ensure smooth and consistent operation are used.

Configurations

- All even/even and even/odd combinations can be specified
- Open in or open out
- Open left, right or split
- Floating external corner
- Floating mullion

Design Features

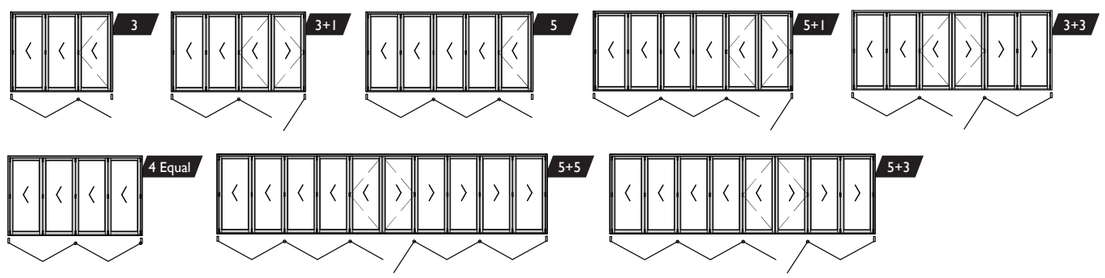
- Single or dual colour powder coating
- Will accept double or triple glazing
- Flush or rebate track
- Bead design options
- Cill size options
- Hardware options*

**Heavy duty hardware only PAS24 accredited.*

TECHNICAL SPECIFICATION

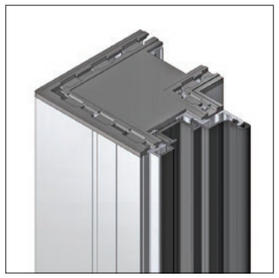
Application	Residential new build, refurbishment and light commercial
Maximum door leaf width	1000mm
Maximum door leaf height	2300mm with standard lock
Maximum door leaf height	2700mm with tall door lock KAS538-TDL
Maximum door leaf weight	100kg
Jointing	Mechanical
Glazing options	Will accept double or triple IGU and infill panels 24 -32mm thick
Beading	Internal
Cills	Design coordinated to rest of residential range
Thermal performance	Polyamide thermally broken profiles - Document L1A, L1B/L2A, L2B compliant
U-Value	1.6W/m^2K
Security	Multi-point dead latch and bolt and lever/lever handset
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.
Single or dual colour profiles	Option
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS 4873:2016 *Specification for aluminium alloy windows and doorsets.* BS EN 14351-1:2006+A2:2016 *Windows and doors, performance characteristics.* BS EN ISO 10077-2:2017 *Thermal performance of windows, doors and shutters.* PAS 24:2016 *Enhanced security performance requirements for doorsets and windows.*

Configurations *(Typical combinations shown. All even/even and even/odd combinations can be specified.)*



Technical Specification

Corner Folding Sliding Door System



Creating a link between house and garden has never been easier with our Corner Folding Sliding Door developed from the PAS24 accredited Folding Sliding Door System.

Using a structural steel to support the top of the building, the complete corner of the room can be swept away using the slimline moving corner post to give even greater access to the outdoors.

Configurations

Odd numbers of doors on one side and any amount of even numbers of doors on the other. Doors only open out.

- 1-2/4/6
- 3-2/4/6
- 5-2/4/6

Design Features

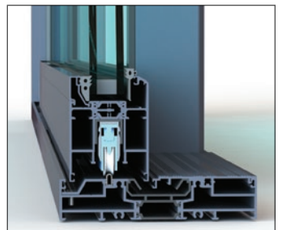
- Single or dual colour powder coating
- Will accept double or triple glazing
- Flush or rebate track
- Bead design options
- Cill options
- Hardware colour options

TECHNICAL SPECIFICATION

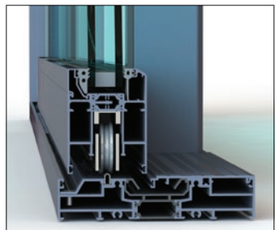
Application	Residential new build and refurbishment.
Maximum door leaf width	1000mm
Maximum door leaf height	2426mm
Minimum door leaf height	1998mm
Maximum door leaf weight	80kg
Glazing options	Will accept double or triple IGU and infill panels 24 -32mm thick
Beading	Internal
Cills	Design coordinated to rest of residential range.
Jointing	Mechanical
U-Value	1.6 W/m^2K.
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.
Single or dual colour profiles	Option
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS 4873:2016 *Specification for aluminium alloy windows and doorsets.* BS EN 14351-1:2006+A2:2016 *Windows and doors, performance characteristics.* BS EN ISO 10077-2:2017 *Thermal performance of windows, doors and shutters.* PAS 24:2016 *Enhanced security performance requirements for doorsets and windows.*

Technical Specification

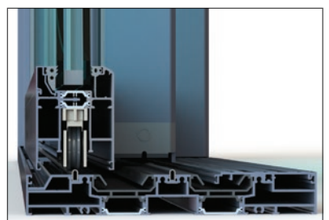
Sliding Patio Door System



Inline Sliding Door



Double Track Lift & Slide



Triple Track Lift & Slide

Huge range of colours

Innovative and practical, our Sliding Patio Door System provides an alternative to a set of French or folding sliding doors.

The minimal sightlines create a dramatic removable wall that provides uninterrupted views to the outdoors. Whilst a thermally efficient, security tested door system provides peace of mind that the home is safe and secure.

Design Options

- Double track sliding door
- Double track lift and slide
- Triple track lift and slide
- Single and dual colour powder coated
- Double and triple glazed

Design Benefits

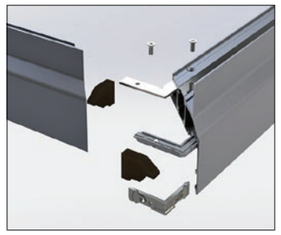
- 106mm interlock
- 111mm outer jamb
- 33mm low threshold
- Soft brake close option
- Integral trickle vents
- Low line gaskets
- PAS24 compliant

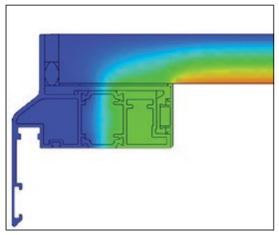
TECHNICAL SPECIFICATION

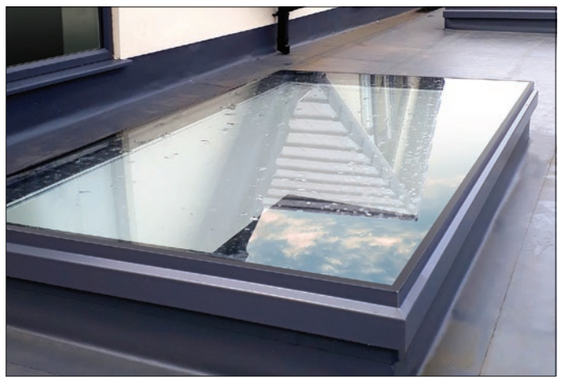
Application	Residential new build, refurbishment and light commercial	
	Inline Sliding	**Lift & Slide**
Maximum door leaf width	2000mm	2100mm
Maximum door leaf height	2300mm	2500mm
Maximum door leaf weight	200kg	300kg (400kg can be achieved with additional rollers)
Jointing	Mechanical	
Internally beaded	Yes	
Glazing options	Will accept double or triple IGU and infill panels 28 - 42mm thick.	
U-Value	1.6W/m2K.	
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.	
Single or dual colour profiles	Option.	
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS 4873:2016 *Specification for aluminium alloy windows and doorsets.* BS EN 14351-1:2006+A2:2016 *Windows and doors, performance characteristics.* BS EN ISO 10077-2:2017 *Thermal performance of windows, doors and shutters.* PAS 24:2016 *Enhanced security performance requirements for doorsets and windows.*	

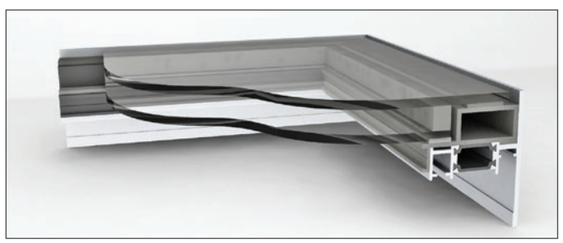
Technical Specification

Flat Rooflight System









Ideal for installation in homes and public buildings our Flat Rooflight System offers the opportunity to bring light into living.

Innovative and practical the made to measure Flat Rooflight has been designed to be fabricator friendly and easy to assemble.

Built bespoke to the size of the opening, using the slim profile, the frame is easy to assemble on sight, making transportation efficient.

Design Options

- Fixed - standard or walk-on
- Ventilation
- Egress

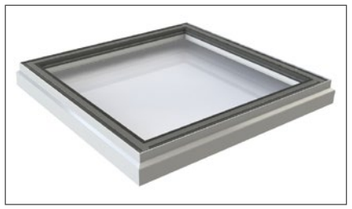
Design Features

- Stepped edge unit
- Flush edge unit
- Minimal glazing bars
- Narrow sightlines
- Dual colour powder coating
- Removeable PCV cassette
- Thermally efficient
- Rafter Bar option available for longer runs of fixed glazing

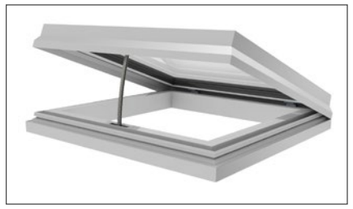
TECHNICAL SPECIFICATION

Application	Residential new build, refurbishment and light commercial.	
	28.4mm unit	**30.8mm unit**
Maximum width	1100mm	1500mm
Maximum length	2500mm	2600mm
Glazing options	28.4mm double glazed unit	30.8mm double glazed unit
Jointing	Mechanical	
U-Value	1.2 W/m^{2}K *(based on fixed version with IGU centre pane 1.1W/m^{2}K. & upstand 1250mm x 1250mm)*	
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.	
Single or dual colour profiles	Option.	
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys*	

Walk-on rooflight



Fixed rooflight

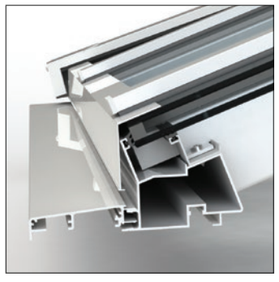


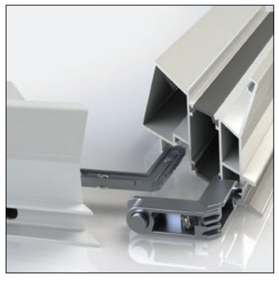
Ventilation rooflight

Egress rooflight

Technical Specification

Lantern Rooflight System





Designed for both residential and light commercial applications, our thermally efficient Lantern Rooflight System incorporates a wealth of design options. It is particularly ideal for use in residential properties where it is perfect to complement the oudoor living effect with our folding, sliding door system.

Maximising natural light, this fabricator friendly system has been designed to create a contemporary appearance with low line ridges and round edge glazing bars.

Design Features

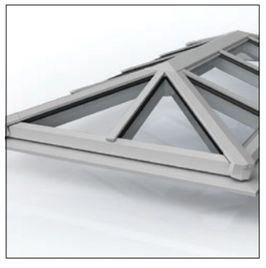
- Mechanical jointing
- Corner joints
- Render stop
- Pre-machined glazing and hip bars
- Cills that echo our residential range
- Fixed 20 degree pitch to eliminate compound mitre cuts
- Thermally broken eaves ridges and bars

Design Benefits

- Secure
- Slim profile
- Ease of transportation
- On-site assembly
- Made to measure
- Thermally efficient

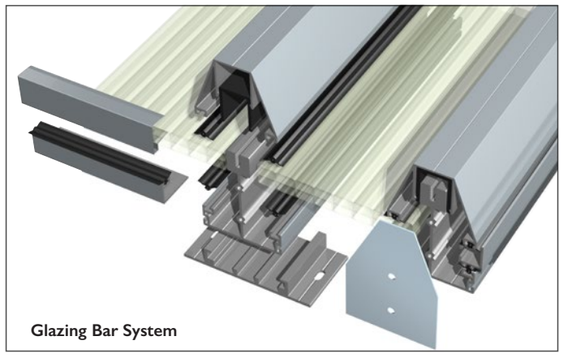
TECHNICAL SPECIFICATION

Application	Residential new build, refurbishment and light commercial.
Maximum width (between upstands)	3700mm
Maximum length (between upstands)	5800mm
Frame profiles	40mm slimline glazing bars.
Glazing options	24 - 32mm double glazed units.
Pitch (fixed)	20°
Cills	Design coordinated to rest of residential range.
Jointing	Mechanical
Thermal performance	Polyamide thermally broken profiles.
U-Value	1.66 W/m^{2}K.
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.
Single or dual colour profiles	Option.
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.*

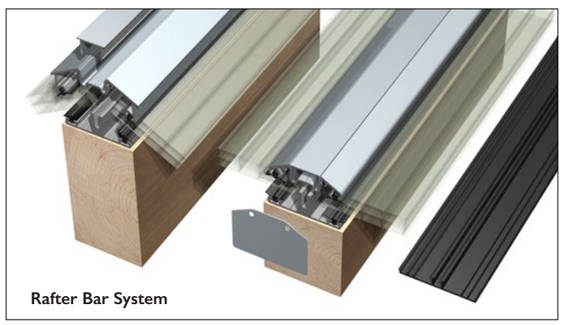


Technical Specification

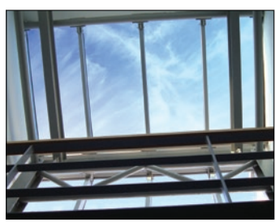
Glazing and Rafter Bar System



Glazing Bar System



Rafter Bar System



A simple self-supporting system designed for external application, ideally suited for construction as canopies, walkways, car ports and lean-to buildings.

Our Glazing Bar System can be used with both glass and polycarbonate sheeting. Caps are available for all glazing bars with both standard and thermally broken options offering the designer a choice of styles.

The rafter glazing bar can be used on timber framed structures. Designed to fit standard 50 mm wide timber, the cap can be used with either an aluminium base or the rubber rafter gasket.

Design Options

- Standard or heavy-duty glazing bars
- Thermally broken options
- Accepts multi-wall polycarbonate sheets, single or double-glazed units
- Mill finish or single powder coated

TECHNICAL SPECIFICATION

Application		Commercial and light industrial buildings			
Roof Pitch		A pitch of less than 15° is considered as 'flat' and is not suitable for this type of roof glazing system.			
Materials		Aluminium profiles are extruded from alloy 6060/6063 T6.			
Finishes		Mill finish or colours on request. Polyester powder coat paint. See separate list for standard colour range available.			
			Length (mm)		
Glazing Bars	KAS 102 KAS 112 KAS 120 KAS 103	Standard duty glazing bar Thermally insulated cap Shallow thermally insulated cap Heavy duty glazing bar	6000 6000 6100 6000	5000 5000 5100 6000	4000 4000 4100 6000
Concealed Fixings Rafter Glazing Bar	KAS 140 KAS 141 KAS 142 KAS 104	Screw cover Rafter cap Rafter hip cap Rafter bar	6100 6100 6100 6100	5100 5100 5100 5100	4100 4100 4100 4100
End Fillers	KAS 122 KAS 123 KAS 124	10mm End filler 16mm End filler 24mm End filler	 6100 6100	5100 5100 5100	 4100 4100
F Sections	KAS 127 KAS 128 KAS 129	10mm 'F' section 16mm 'F' section 25mm 'F' section	6100 6100 6100	5100 5100 5100	4100 4100 4100
Closures	KAS 125 KAS 126 KAS 130	10mm closure 16mm closure 25mm closure	6100 6100 6100	5100 5100 5100	4300 4300 4300
Eaves Fillers	KAS 131 KAS 132	Eaves filler (standard and light duty bars) Eaves filler (rafter bars)	6100 6100	5100 5100	4100 4100
Wall Plates	KAS 136 KAS 137	Wall plate (fixed part) Wall plate (hinge part)	6000 6000	5000 5000	4000 4000
Fixing Brackets and End Caps	KAS 139 KAS 139C KAS1381.24 KAS1382.10 /.16/.24 KAS1383.24 KAS1384.10 /.16/.24 KAS1385.10 /.16/.24 KAS1386.10 /.16/.24	Fixing bracket Fixing bracket cut/drilled 50mm long End cap (KAS102/120) for 24mm End cap (KAS102/112) for 10mm, 16mm, 24mm End cap (KAS103/120) for 24mm End cap (KAS103/112) for 10mm, 16mm, 24mm End cap (KAS104/141) for 10mm, 16mm, 24mm End cap (KAS104/142) for 10mm, 16mm, 24mm		5000	
Thermal Insulator	KAS 196	Thermal insulator	6000	5000	4000
Gaskets	KAS 192 KAS 193 KAS 194	Standard TPR gasket Hip TPR gasket Rafter TPR gasket	50m coil 50m coil 25m coil		
Design standards		BS 5516-1: 2004 Patent glazing and sloping glazing for buildings. BS EN 755-9: 2016. Aluminium and aluminium alloys. Extruded rod/bar, tube and profiles. BS 4255-1:1986 Rubber used in preformed gaskets for weather exclusion from buildings. BS EN 12020-2:2001 Aluminium and aluminium alloys, extruded precision profiles. BS 3987:1991 Specification for anodic oxide coatings. BS EN 12206-1:2021 Paints and varnishes, coating of aluminium and aluminium alloys.			

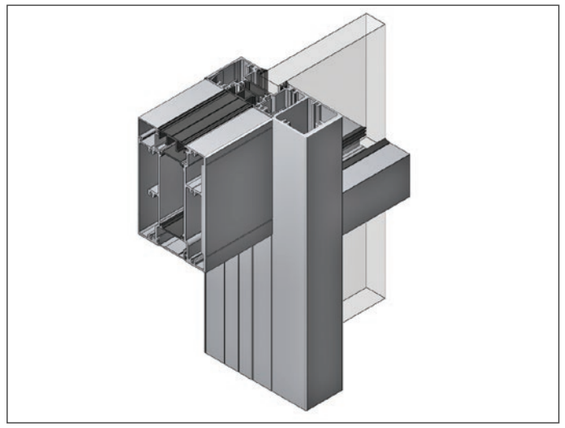
SPANNING GUIDE - MAXIMUM RECOMMENDED SPANS (mm)

			Distance between bar centres - mm					
			600	1000	1200	600	1000	1200
Rafter bar type		**Load (N/m²)**	**Single glazed or polycarbonate**			**Double glazed**		
Standard Duty		500	3700	3300	3200	3300	2900	2800
		750	3400	3000	2800	3000	2600	2500
		1000	3100	2700	2500	2800	2400	2300
Heavy Duty		500	4800	4200	4000	4200	3700	3600
		750	4300	3800	3700	3800	3400	3200
		1000	4000	3500	3400	3500	3100	3000

The table is for guidance purposes only. All loads should be calculated for the project by a qualified structural engineer. ***Note:*** *Span = distance between fixing points - not overall bar length.*
Important: *Make sure that when using bars over 600mm centres, screw fixing of cover caps can be accessed safely for both installation and during maintenance periods.*

Technical Specification

Thermal Framing System



For application in schools, retail buildings and public buildings where high thermal performance is required. The Thermal Framing System is a secure and cost effective method of glazing.

Designed to be integrated with the Kestrel window and door suites, the system offers commonality of design to give a uniform aesthetic.

This flexible solution for low rise buildings ensures high thermal performance and meets the required building regulations.

Design Options

- Single or dual colour powder coated
- Double or triple glazing
- Solid infill panels
- Profiles can be shaped
- Heavy duty mullion for larger spans
- Auto header section
- Corner post

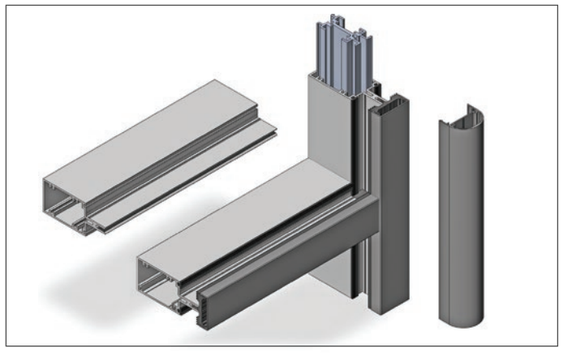
TECHNICAL SPECIFICATION

Application	Commercial new build and refurbishment.
Maximum Frame Width	To be calculated in accordance with individual site conditions.
Maximum Frame Height	To be calculated in accordance with individual site conditions.
Jointing	Mechanical
Internally Beaded Option	Yes
Externally Beaded Option	Yes
Glazing options	Will accept double or triple IGU and infill panels 28 – 32mm thick.
U-Value	1.6 W/m^2K. *
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.
Single or dual colour profiles	Option
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.*

**Values stated achieved using centre pane unit of 1.2 W/m^2K.*

Technical Specification

Curtain Walling System



Providing thermal and weather performance the Kestrel Aluminium low rise Curtain Walling system is designed to offer a flexible solution to façade cladding.

The profiles can be used to create a flat, facetted, curved or angled façade using mullion and transom designs.

Ideal for installation in public buildings, offices, leisure facilities and domestic applications, curtain wall maximises natural light in common areas and creates impressive building façades. Compatible with Kestrel window and door systems, the suite provides a complete glazing solution for refurbishment and new build buildings and dwellings.

Design Options

- Slim 50mm sight lines
- 75, 100 or 125mm box & plate sections
- 50, 75, 100, 125, 150 or 175mm solid box sections
- Bull nose, aero or flat capping options
- Co-extruded pressure plate
- Reinforcement profiles
- Compatible roofing system

Performance

- Air permeability: 600Pa
- Water ingress: 600Pa
- Wind resistance: Serviceability - 1500Pa
- Wind resistance: Static - 2250Pa

TECHNICAL SPECIFICATION

Application	Residential and commercial - new build and refurbishment.
Maximum height	To be calculated in accordance with individual site conditions.
U-Value	To be calculated in accordance with individual site conditions
Jointing	Mechanical corner and transom / mullion jointing..
Glazing options	Insulated Glass Units or composite panels: 24mm, 28mm and 30mm thick. Single glazed variants: 6mm, 6.4mm, 8.8mm, 10mm, 10.8mm, 14mm, 17mm and 19mm thick.
Performance	Water ingress 600Pa Air permeability 600Pa Wind resistance - serviceability - 1500Pa Wind resistance - static - 2250Pa
Finishes	Mill finish. Etched and anodised Silver AA25 or colours on request. Polyester powder coat paint. See separate list for standard colour range available.
Single or dual colour profiles	Option
Design standards	BS EN 12020-2:2001 *Aluminium and aluminium alloys, extruded precision profiles.* BS 3987:1991 *Specification for anodic oxide coatings.* BS EN 12206-1:2021 *Paints and varnishes, coating of aluminium and aluminium alloys.* BS EN 13830:2015+A1:2020 *Curtain walling - product standard.* CWCT & BS EN 13830 *Test data.*

KESTREL
ALUMINIUM SYSTEMS

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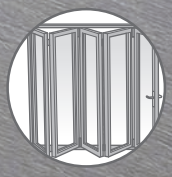
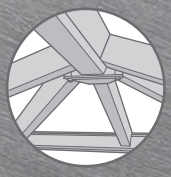
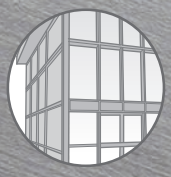
WINDOWS


DOORS


ROOFING


SHOPFRONT


CURTAIN WALL

www.kestrelaluminium.co.uk

NBS Source

CAB
Council for Aluminium in Building Member