![smart architectural aluminium logo]

ALITHERM 400
FRAMING FUTURE ALUMINIUM SOLUTIONS

Framing the Future
Alitherm 400

Combining outstanding value and quality, with class-leading performance and security, Alitherm 400 delivers a range of stylish, energy-efficient window and single and double door options.

Fully compliant with Part L of the Building Regulations, this versatile system is perfect for a wide range of both new build and refurbishment projects, including, schools, colleges, hospitals, offices and public sector housing – as well as individual homes.

In fact, the system's supreme flexibility makes it the ideal solution for almost any project.

Both window and door systems provide excellent weather and thermal performance and are available in a huge range of colours. Combining elegant aesthetics and outstanding security performance (the system is approved to PAS:24 2022), Alitherm 400 is the ultimate window and door system for architects, developers, fabricators and installers.

✦ *The Alitherm 400 system is an ideal choice for any project, whether it's commercial, residential, or a school building.*

Faster, simpler fabrication and installation

❶ Quick Glaze Bead with co-extruded glazing gasket

❷ Sashes feature co-extruded flipper and retaining gaskets

❸ Outer frame features co-extruded flipper gasket

FEATURES SMART'S NEW
QUICK GLAZE *BEAD*

The installers choice
for simplicity and speed

Suitable for a broad range of residential and commercial applications, Alitherm 400 provides the ultimate in versatility, delivering a high-quality, high-performance option for projects of all size and complexity.

The first system in the UK to feature Smart's innovative Quick-Glaze Beads, the system has been developed with ease of fabrication and installation in mind. With the profiles and beads being supplied with the glazing gasket pre-extruded into the profile, the Quick-Glaze Bead significantly reduces fabrication and installation time.

The high quality system requires little maintenance, ensuring that once installed it will deliver many decades of trouble free, reliable operation.

Photographs shown in this brochure illustrate the types of projects suitable for Alitherm 400 and are not binding in detail, colour or specification.

Alitherm 400
window systems

Available in fixed, side hung, top hung, tilt & turn and flush casement options, Alitherm 400 windows deliver excellent thermal and weather performance, as well as the security assurance provided by PAS24 approval.

Standard Casement

The format of choice for many projects, Alitherm 400 standard casement windows are available as fixed and top-hung or side-hung options, to meet the needs of any application.

Flush Casement

Alitherm 400 flush casement windows use the same sash, transom and mullion profiles as standard casements and are made possible by selecting the flush window outer frame.

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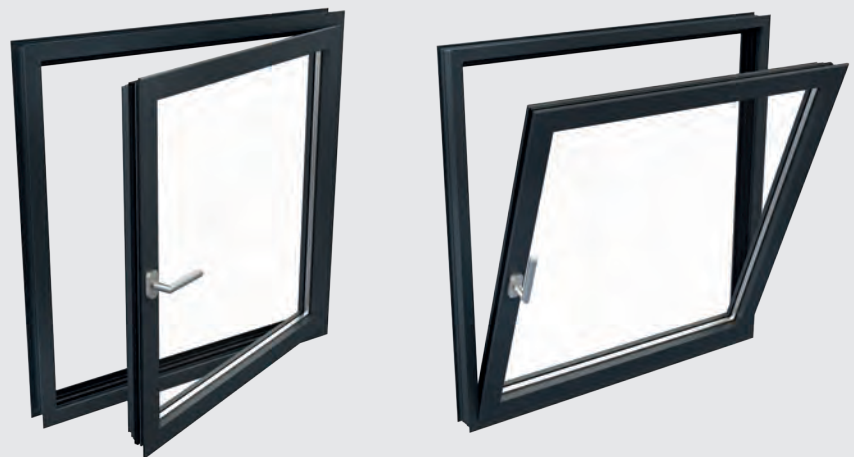
Heritage Flush Casements

The slim profiles and elegant lines of the Alitherm 400 system make it an ideal solution for refurbishment projects, and as a modern, energy efficient replacement for tired u-PVC, steel and timber windows.

The installers choice for simplicity and speed

Tilt & Turn windows

The Tilt & Turn unit provides a contemporary design and the option of tilting the window or opening it into the room to 90 degrees. Perfect for flooding a room with light and air – and for easy cleaning.

Window Type	Maximum Width (mm)	Maximum Height (mm)	Frame Depth (mm)	Maximum Perimeter (mm)	Glazing Units	Security Standard	Typical U Value[1]	WER[2]	Air Permeability Classification	Water Tightness Classification	Resistance to Wind Classification
Sash dimensions for windows with approved sash profiles:											
Side Hung	864	1400	70	–	24, 28, 32, 36, 40, 45	PAS 24:2022	1.4 W/m²K	Band A	Class 4	E1200	AE2400
Top Hung	1400	1400	70	–	24, 28, 32, 36, 40, 45	PAS 24:2022	1.4 W/m²K	Band A	Class 4	E1200	AE2400
Fixed	2100	2100	70	42	24, 28, 32, 36, 40, 45	PAS 24:2022	1.4 W/m²K	Band A	Class 4	E1200	AE2400
Tilt / Turn	1200	2100	70	–	24, 28, 32, 36, 40, 45	TBA	1.4 W/m²K	Band A	TBA	TBA	TBA

(For sizes outside these parameters, contact the Smart Technical Support team)
Typical Values different glass, profiles and door configurations will vary U Value and Window Energy Rating
1. U Value based on opener next to fixed 1230 x 1480 using glass Centre Pane 1.0
2. WER based on opener next to fixed 1230 x 1480 using glass Centre Pane 1.2 and g value 0.74

Alitherm 400
door systems

Alitherm 400 doors perfectly complement the window range, with the same stylish lines and providing the same ease of fabrication and installation.

Available as open-in or open-out, single or double doors, each door provides excellent weather and thermal performance, as well as the security assurance provided by PAS 24:2022 approval. Security options include a choice of key wind, lift lever or slam multipoint locks.

FLUSH DOOR SASH CORNER

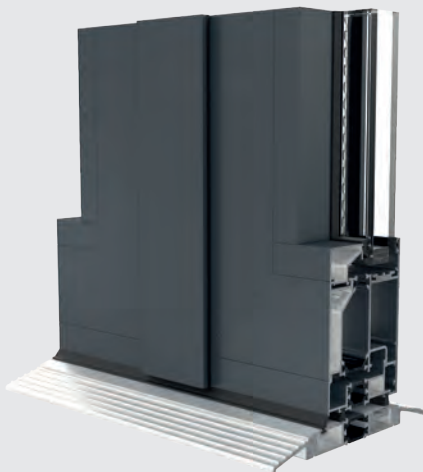**SINGLE DOOR FEATURING PANEL PT0002P**

STEPPED DOOR SASH CORNER

Fully compatible with Designer Panels

Suitable for both residential and commercial applications, Alitherm 400 can also be combined with Smart's Designer Door Panels and range of standard door furniture, which includes colour matched lever handles, and the Quantum range of stainless steel hardware, to create elegant and contemporary entrance doors.
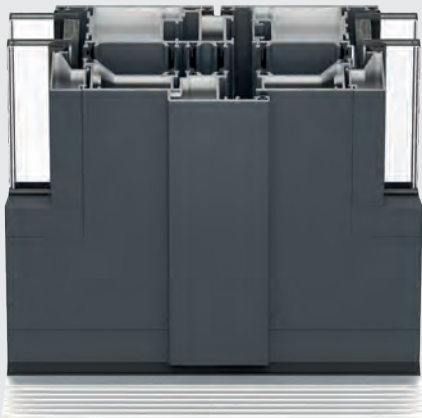
- ✦ **Glazed and Solid Panels Available**
- ✦ **Minimal Maintenance**
- ✦ **Long-life Performance**
- ✦ **Excellent Thermal Performance**
- ✦ **An Unrivalled Choice of Colour and Finishes**

DOOR
SASH CORNER

DOUBLE DOOR – OPEN IN/OPEN OUT

DOUBLE DOOR MEETING STYLE
& LOW THRESHOLD

Door Type	Maximum Width (mm)	Maximum Height (mm)	Frame Depth (mm)	Glazing Units	Security Standard	Typical U Value[1]	DSER[3]	Air Permeability Classification	Water Tightness Classification	Resistance to Wind Classification
Sash dimensions for doors with approved sash profiles:										
Single Door Open In	1000	2400	70	24, 28, 32, 36 & 40, 45	PAS 24:2022	1.4W/m²K 1.2 W/m²K (w/ Designer Panel)	Band B	Class 2 300Pa	Class 5A 200Pa	Class BE 2400Pa
Double Door Open In	2000	2400	70	24, 28, 32, 36 & 40, 45	PAS 24:2022	1.4W/m²K 1.2 W/m²K (w/ Designer Panel)	Band B	Class 2 300Pa	Class 5A 200Pa	Class BE 2400Pa
Single Door Open Out	1000	2400	70	24, 28, 32, 36 & 40, 45	PAS 24:2022	1.4W/m²K 1.2 W/m²K (w/ Designer Panel)	Band B	Class 2 300Pa	Class E 1050Pa	Class AE 2400Pa
Double Door Open Out	2000	2400	70	24, 28, 32, 36 & 40, 45	PAS 24:2022	1.4W/m²K 1.2 W/m²K (w/ Designer Panel)	Band B	Class 2 300Pa	Class E 1050Pa	Class AE 2400Pa

(For sizes outside these parameters, contact the Smart Technical Support team)
3. U Value and Door Set Energy Rating for single door based on 1230 x 2180 using glass Centre Pane 1.0
4. U Value for double door based on 2000 x 2180 using glass Centre Pane 1.0
5. Door Set Energy Rating for double doors based on 2000 x 2180 using glass Centre Pane 1.2 and g value 0.7
6. Weather-tightness based on lift-lever locking

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bsi	BES 6001 Responsible Sourcing of Construction Products CERTIFIED	bsi	ISO 9001 Quality Management Systems CERTIFIED	bsi	ISO 14001 Environmental Management CERTIFIED	bsi	ISO 45001 Occupational Health and Safety Management CERTIFIED	bsi	ISO 50001 Energy Management CERTIFIED
BES668681		FM21582		EMS554307		OHS571955		ENMS634370	

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