smart
architectural aluminium

Proud members of
MADE IN BRITAIN



Introducing...

ALITHERM 400

Combining outstanding value and quality, with class-leading performance and security, the new Alitherm 400 system provides a range of stylish casement windows and single and double doors.

The system is perfect for a wide variety of projects, including both new build and refurbishment, residential and light commercial applications and is proudly made in Britain by Smart.

Alitherm 400's design incorporates Smart's innovative polyamide thermal break technology, which creates a barrier between the cold air outside and warm air inside, significantly reducing thermal transmittance and enhancing the system's overall U-value. The system is also fully compliant with changes to Document L of the Building Regulations, is rigorously tested to PAS 24:2016 as standard and exceeds the requirements for weather resistance and security performance.

The image illustrates suitable applications for Alitherm 400 and is not binding in detail or specification.

DESIGNING PRODUCT SOLUTIONS FOR

- **Building Regulations Compliant**
  Fully compliant with changes to Document L of the building Regulations
- **Smart Quick-Glaze Bead**
  Featuring integrated gasket and 'tap-in' design for easier fabrication and faster installation
- **PAS 24:2016 Approved**
  Enhanced security for aluminium windows and doors
- **Unrivalled Choice of Colour**
  In addition to our 5 colour collections, we can colour match any RAL colour
- **Suitable for Residential and Light Commercial Properties**



TOP HUNG



TOP HUNG

SIDE HUNG



Alitherm 400
WINDOWS

The Alitherm 400 window is the first thermally broken aluminium system to feature Smart's pioneering co-extruded glazing gasket. This means the beads are supplied with the glazing gasket post-extruded into the profile. This enables the Quick-Glaze beads to be simply tapped in on site, significantly reducing fabrication and installation time.

Available with a flush or chamfered profile, the slim lines of Alitherm 400 provide excellent weather and thermal performance, as well as the security assurance provided by PAS24 accreditation. While the flush, flat face option is suitable for off-set, face-mounted espagnolette locks, the chamfered design features a eurogroove, to enable in-line espagnolette locking mechanisms to be used.

FEATURES AND **SPECIFICATIONS**

- ✦ Building Regulations Compliant
  Fully complies with changes to Document L of the Building Regulations
- ✦ Quick-Glaze Bead
- ✦ Excellent Thermal Performance
  An extended polyamide thermal break for enhanced thermal performance
- ✦ Suitable for All Lock Types
  Suitable for off-set, face-mounted espagnolette lock mechanisms
- ✦ PAS 24:2016 Approved
  Enhanced security for aluminium windows and doors

U Value 1.4W/m²K Windows

A WER Windows

*Results show best result possible dependant on specification.

Alitherm 400
DOORS

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, the system provides excellent weather and thermal performance, as well as the security assurance provided by PAS 24:2016 accreditation. Security options include a choice of key wind, lift lever or slam lock multipoint locks.

Suitable for both residential and commercial applications, Alitherm 400 can also be combined with Smart's Designer Door Panels and the company's range of standard door furniture (including colour matched lever handles, and the Quantum range of stainless steel hardware), to create elegant and contemporary entrance doors.

FEATURES AND **SPECIFICATIONS**

- ✦ Building Regulations Compliant
  Complies fully with changes to Document L of the Building Regulations
- ✦ Quick-Glaze Bead
- ✦ Available as Open-in or Open-out, Single or Double Doors
- ✦ PAS 24:2016 Approved
  Enhanced security for aluminium windows and doors
- ✦ Security Options
  A choice of either key wind or lift lever and slam lock or multipoint locks
- ✦ Smart Designer Door Panels
  We offer an extensive range of panels that fit the Alitherm 400 door
- ✦ Excellent Thermal Performance
  An extended polyamide thermal break for enhanced thermal performance

U Value 1.4W/m²K Single Door	DSER Single Door	U Value 1.4W/m²K Double Door	DSER Double Door
	B		B

*Results show best result possible dependant on specification.



DOUBLE DOOR
FEATURING LOW THRESHOLD









FEATURES SMART'S NEW **QUICK GLAZE** *BEAD*

For installers, Alitherm 400's new, Quick-Glaze Bead is simply tapped in on site with the gasket already in place (rather than beading followed by inserting wedge gaskets), making the installation and glazing process faster, more straightforward and more cost effective.

Smart Quick-Glaze Bead is available in Naturals colours White (WP), Black (BL) and Anthracite Grey (KL005).

ALITHERM 400 **WINDOWS**

ALITHERM 400 **DOORS**



WINDOW
SASH CORNER



WINDOW
MULLION



DOOR
SASH CORNER



DOUBLE DOOR MEETING STYLE
& LOW THRESHOLD

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 Permability 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 24:2016	1.4 W/m²K	Band A	Class 4	AE2400	2000+
Top Hung	1400	1500	70	–	24, 28, 32, 36, 40 & 45	PAS 24:2016	1.4 W/m²K	Band A	Class 4	AE2400	2000+
Fixed	2100	2100	70	42	24, 28, 32, 36, 40 & 45	PAS 24:2016	1.4 W/m²K	Band A	Class 4	AE2400	2000+

(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

Door Type	Maximum Width (mm)	Maximum Height (mm)	Frame Depth (mm)	Glazing Units	Security Standard	Typical U Value[1]	DSER[3]	Air Permability Classification	Water Tightness Classification	Resistance to Wind Classification
Sash dimensions for doors with approved sash profiles (double door dimensions include both sashes):										
Single Door Open In	1100	2400	70	24, 28, 32, 36, 40 & 45	PAS 24:2016	1.4W/m²K (1.2 W/m²K (w/ Designer Panel))	Band B	Class 4 600Pa	Class 3A 100Pa	Class C3 1200Pa
Double Door Open In	2200	2400	70	24, 28, 32, 36, 40 & 45	PAS 24:2016	1.4W/m²K (1.2 W/m²K (w/ Designer Panel))	Band B	Class 4 600Pa	Class 3A 100Pa	Class C3 1200Pa
Single Door Open Out	1100	2400	70	24, 28, 32, 36, 40 & 45	PAS 24:2016	1.4W/m²K (1.2 W/m²K (w/ Designer Panel))	Band B	Class 3 600Pa	Class E 900Pa	Class C3 1200Pa
Double Door Open Out	2200	2400	70	24, 28, 32, 36, 40 & 45	PAS 24:2016	1.4W/m²K (1.2 W/m²K (w/ Designer Panel))	Band B	Class 3 600Pa	Class E 900Pa	Class C3 1200Pa

(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

Smart Systems Limited
Arnolds Way, Yatton,
Bristol
Somerset, BS49 4QN. UK IMS609AL4.202205

T +44 (0)1934 876 100
F +44 (0)1934 835 169
www.smartsystems.co.uk

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