



This is to certify that: **Smart Systems Limited**

Incorporating Smart Extrusions

Arnolds Way Yatton **BS49 4QN** United Kingdom

Holds Certificate Number: KM 81580

In respect of:

BS 4873 / PAS24 Enhanced Security Aluminium Window System Supplier

This issues the right and licence to use the Kitemark in accordance with the Kitemark Terms and Conditions governing the use of the Kitemark, as may be updated from time to time by BSI Assurance UK Ltd (the "Conditions"). All defined terms in this Certificate shall have the same meaning as in the Conditions.

The use of the Kitemark is authorized in respect of the Product(s) detailed on this Certificate provided at or from the above address.

For and on behalf of BSI: Chris Lewis - Certification Director, Product Certification

First Issued: 2005-02-03 Effective Date: 2019-10-24 Latest Issue: 2019-10-24 Expiry Date: 2022-10-23

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No. KM 81580

BS 4873:2016 / PAS 24:2016 - Enhanced security performance requirements for window assemblies.

This Certificate covers the following window system design specification. Only those components that have been approved in accordance with the Kitemark scheme requirement can be incorporated within the system detailed.

Alitherm 300 Aluminium Alloy Window System

Fabrication and Installation:

Fabricated and installed in accordance with the latest issue(s) of the following

Smart Systems Limited controlled manual(s):

Smart Systems Alitherm 300 Window Manual

System description: The windows are thermally broken, double glazed only, internally or externally

beaded, multipoint locking only, with mechanically fixed transoms/mullions

Ventilation: None

Window Types: Casement windows

Fixed windows

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed

light(s)

Profiles Outer Frame(s) ETC302/303/304/305/306/308/310/313

Transom/Mullion(s) ETC333/335/336/337

Sash(es) ETC321/323/324N/326/327/328N/329/423/424N

Rebate Reverser ETC343/344/345/346N

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No. KM 81580

Hardware - Alitherm 300 Aluminium Alloy Window System

Casement windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender stays Nico Friction Hinges	Smart Systems	ACET070	Smart Systems
Securistyle Vector Excluder ASD2 hinge protectors	Smart Systems	ACET066	Smart Systems
Trojan Shootbolt/mushroom bolt espagnolette locking system	Smart Systems	Espagnolette & keeps: ACET066	Smart Systems
ACET081/ACET165 Key locking handles	Smart Systems	ACET069	Smart Systems
Run-up blocks 4 off per sash	-		

^{*}Glass retention as specified below.

Dummy vent windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender stays	Smart Systems	ACET070	Smart Systems

^{*}Glass retention as specified below.

Glass retention: External: Glazing beads and Glaslok Securi-clip security glazing clips

> Glazing beads Internal:

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed light(s)

Hardware/Fixing requirements are as specified for opening, dummy vent and fixed window types.

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Size Limitations and Performance Characteristics – to be read in conjunction with fabrication manual **Alitherm 300 Aluminium Alloy Window System**

Window Type	Length (mm) - Maximum	Height (mm) - Maximum	Area(m²) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Watertightness classification	Resistance to Wind classification	Exposure category asgiven in Table 1 of BS 6375-1:
Sash dimensions for windo	ows with a	approved	sash pro	files:					
Projecting top hungs Internally beaded	1400	1400	-	24"	-	4	E1200	AE2400	2000+
Projecting top hungs Externally beaded	1400	1400	-	24"	1	4	E1200	AE2400	2000+
Projecting side hungs Internally beaded	600	1400	-	16"	-	4	E1200	AE2400	2000+
Projecting side hungs Externally beaded	600	1400	-	16"	-	4	E1200	AE2400	2000+
Overall dimensions for wir	ndows with	n approve	d outer	frame pi	rofiles:				
Fixeds Internally Beaded	2100	2100	4.2	-	-	4	E1200	AE2400	2000+
Fixeds Externally Beaded	2100	2100	4.2	-	-	4	E1200	AE2400	2000+
Overall dimensions for app	Overall dimensions for approved outer frames & transom/mullion profiles:								
Multilights ETC335 T/M Internally Beaded	2100	2100	2.5	-	1450	4	E1200	AE2400	2000+
Multilights ETC335 T/M Externally Beaded	2100	2100	2.5	-	1450	4	E1200	AE2400	2000+

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BS 4873:2016 / PAS 24:2016 - Enhanced security performance requirements for window assemblies.

This Certificate covers the following window system design specification. Only those components that have been approved in accordance with the Kitemark scheme requirement can be incorporated within the system detailed.

Alitherm 500 Aluminium Alloy Window System

Fabrication and Installation:

Fabricated and installed in accordance with the latest issue(s) of the following

Smart Systems Limited controlled manual(s):

Smart Systems Alitherm 500 Window Manual

System description: The windows are thermally broken, double glazed only, internally or externally

beaded, multipoint locking only, with mechanically fixed transoms/mullions

Ventilation: None

Window Types: Casement and dummy casement windows

Multilight windows comprising opening light(s) and/or dummy vent(s)

Profiles Outer Frame(s) ETC511

Transom/Mullion(s) ETC531 Sash(es) ETC521

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Hardware - Alitherm 500 Aluminium Alloy Window System

Casement windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Butt Hinge ACET552	Smart Systems	M4 x 15mm –ACET490	Smart Systems
Trojan Reverse espagnolette locking system –ACET501-505	Smart Systems	Espagnolette & keeps: ACET064	Smart Systems
ACET460, 465. Key locking handles	Smart Systems	M5 x 12mm	Smart Systems
Run-up blocks ACET580 4 off per sash	Smart Systems-	ACET490	Smart Systems
Mullion anti-twist clip ACET157	Smart Systems		

^{*}Glass retention as specified below.

Glass retention: Internal: Glazing beads

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed light(s)

Hardware/Fixing requirements are as specified for opening, dummy vent.

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Size Limitations and Performance Characteristics – to be read in conjunction with fabrication manual **Alitherm 500 Aluminium Alloy Window System**

Window Type	Length (mm) - Maximum	Height (mm) - Maximum	Area(m²) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Watertightness classification	Resistance to Wind classification	Exposure category asgiven in Table 1 of BS 6375-1:
Sash dimensions for windo	ows with a	approved	sash pro	files:					
Top hungs Internally beaded	1400	1400	-	-	-	2	E900	AE2400	2000+
Side hungs Internally beaded	700	1400	-	-	-	4	E1050	AE2400	2000+
Dummy Sash Internally beaded	1400	1400	-	-	1400	4	E1050	AE2400	2000+

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BS 4873:2016 / PAS 24:2016 - Enhanced security performance requirements for window assemblies.

This Certificate covers the following window system design specification. Only those components that have been approved in accordance with the Kitemark scheme requirement can be incorporated within the system detailed.

Alitherm 600 Aluminium Alloy Window System

Fabrication and Installation:

Fabricated and installed in accordance with the latest issue(s) of the following

Smart Systems Limited controlled manual(s):

Smart Systems Alitherm 600 Window Manual

System description: The windows are thermally broken, double glazed only, internally or externally

beaded, multipoint locking only, with mechanically fixed transoms/mullions

Ventilation: None

Window Types: Casement windows

Fixed windows

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed

light(s)

Profiles Outer Frame(s) ETC610/ETC611/ETC612/ETC613/ETC614/ETC615/

ETC616/ETC619/ETC6101/ETC618

Transom/Mullion(s) ETC630/ETC631/ETC632/ETC633/ETC634/ETC635/

ETC636/ETC638/ETC639/ETC6301/

Sash(es) ETC620/ETC621/ETC622/ETC623/ETC624/ETC625/

ETC627/ETC628

Rebate Reverser ETC645/ETC647/ETC648

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Hardware - Alitherm 600 Aluminium Alloy Window System

Casement windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender stays Nico Friction Hinges	Smart Systems	ACET070	Smart Systems
Securistyle Vector Excluder ASD2 hinge protectors	Smart Systems	ACET066	Smart Systems
Trojan Shootbolt/mushroom bolt espagnolette locking system	Smart Systems	Espagnolette & keeps: ACET066	Smart Systems
ACET081/ACET165 Key locking handles	Smart Systems	ACET069	Smart Systems
Run-up blocks 4 off per sash	-		

^{*}Glass retention as specified below.

Dummy vent windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender stays	Smart Systems	ACET070	Smart Systems

^{*}Glass retention as specified below.

Glass retention: External: Glazing beads and Glaslok Securi-clip security glazing clips

Glazing beads Internal:

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed light(s)

Hardware/Fixing requirements are as specified for opening, dummy vent and fixed window types.

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Size Limitations and Performance Characteristics – to be read in conjunction with fabrication manual **Alitherm 600 Aluminium Alloy Window System**

Window Type	Length (mm) - Maximum	Height (mm) - Maximum	Area(m²) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Watertightness classification	Resistance to Wind classification	Exposure category asgiven in Table 1 of BS 6375-1
Sash dimensions for windo	ows with a	approved	d sash p	rofiles:					
Projecting top hungs Internally beaded	1400	1500	-	24"	-	4	9A	AE2400	2000+
Projecting top hungs Externally beaded	1400	1500	-	24"	-	4	E1200	AE2400	2000+
Projecting side hungs Internally beaded	1000	1400	-	16"	-	4	9A	AE2400	2000+
Projecting side hungs Externally beaded	1000	1400	-	16"	-	4	E1200	AE2400	2000+
Overall dimensions for wir	ndows wit	h approv	ed oute	r frame pı	ofiles:				
Fixeds Internally Beaded	2100	2100	4.2	-	-	4	9A	AE2400	2000+
Fixeds Externally Beaded	2100	2100	4.2	-	-	4	E1200	AE2400	2000+
Overall dimensions for approved outer frames & transom/mullion profiles:									
Multilights ETC335 T/M Internally Beaded	2100	2100	2.5	-	1450	4	9A	AE2400	2000+
Multilights ETC335 T/M Externally Beaded	2100	2100	2.5	-	1450	4	E1200	AE2400	2000+

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BS 4873:2016 / PAS 24:2016 - Enhanced security performance requirements for window assemblies.

This Certificate covers the following window system design specification. Only those components that have been approved in accordance with the Kitemark scheme requirement can be incorporated within the system detailed.

Alitherm 700 Aluminium Alloy Window System

Fabrication and Installation:

Fabricated and installed in accordance with the latest issue(s) of the following

Smart Systems Limited controlled manual(s):

Smart Systems Alitherm 700 Windows Manual

System description: The windows are thermally broken, double glazed only, internally beaded, multipoint

locking only, with mechanically fixed transoms/mullions

Ventilation: None

Window Types: Casement windows

Parallel opening windows Fully reversible windows

Fixed windows

Profiles Outer Frame(s) ETC710/ETC716/ETC717/ETC718

Sash(es) ETC720/ETC721/ETC726
Mullion/Transom ETC 730/ ETC733/ETC736/

ETC737

Rebate Reverser ETC745/ETC746/ETC747

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Hardware - Alitherm 700 Aluminium Alloy Window System

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender stays Nico Friction Hinges	Smart Systems	ACET070	Smart Systems
Securistyle Vector Excluder ASD2 hinge protectors	Smart Systems	ACET066	Smart Systems
Locking Kit ACE710	Smart Systems		Smart Systems
ACET081/ACET165 Key locking handles	Smart Systems	ACET069	Smart Systems
Run-up blocks 4 off per sash	-		

^{*}Glass retention as specified below.

Glass retention: External: Glazing beads and Glaslok Securi-clip security glazing clips

Internal: Glazing beads

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Size Limitations and Performance Characteristics – to be read in conjunction with fabrication manual **Alitherm 700 Aluminium Alloy Window System**

Window Type	Length (mm) - Maximum	Height (mm) - Maximum	Area(m²) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Watertightness classification	Resistance to Wind classification	Exposure category asgiven in Table 1 of BS 6375-1
Sash dimensions for wind	lows wit	h approv	ed sash	profiles					
Projecting Top Hungs	1600	1600	-	-	-	4	9A	AE2400	2000+
Projecting Side Hungs	840	1500	ı	-	-	4	9A	AE2400	2000+
Parallel	1800	2100	3.7	-	-	4	9A	AE2400	2000+
Reversible	1500	1558	2.2	-	-	4	9A	AE2400	2000+
Fixed	2100	2100	4.2	-	-	4	9A	AE2400	2000+

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BS 4873:2016 / PAS 24:2016 - Enhanced security performance requirements for window assemblies.

This Certificate covers the following window system design specification. Only those components that have been approved in accordance with the Kitemark scheme requirement can be incorporated within the system detailed.

Alitherm 800 Aluminium Alloy Window System

Fabrication and Installation:

Fabricated and installed in accordance with the latest issue(s) of the following

Smart Systems Limited controlled manual(s):

Smart Systems Alitherm 800 Windows and Doors Manual

System description: The windows are thermally broken, double glazed only, internally or externally

beaded, multipoint locking only, with mechanically fixed transoms/mullions

Ventilation: None

Window Types: Casement windows

Fixed windows

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed

light(s)

Profiles Outer Frame(s) ETC810/ETC811/ETC812/ETC813/

ETC814/ETC815/ETC816/ETC817/ETC819

ETC821/ETC8201/ETC

Transom/Mullion(s) ETC830/ETC832/ETC834/ETC835/ETC839
Sash(es) ETC821/ETC823/ETC824/ETC826/ETC827/

ETC828/ETC829/ETC8201/ETC8250

Rebate Reverser (Internal glazing) ETC845/ETC846

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Hardware - Alitherm 800 Aluminium Alloy Window System

Casement windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender stays Nico Friction Hinges	Smart Systems	ACET070	Smart Systems
Securistyle Vector Excluder ASD2 hinge protectors	Smart Systems	ACET066	Smart Systems
Trojan Shootbolt/mushroom bolt espagnolette locking system	Smart Systems	Espagnolette & keeps: ACET066	Smart Systems
ACET081/ACET165 Key locking handles	Smart Systems	ACET069	Smart Systems
Run-up blocks 4 off per sash	-		

^{*}Glass retention as specified below.

Dummy vent windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender stays	Smart Systems	ACET070	Smart Systems

^{*}Glass retention as specified below.

Glass retention: External: Glazing beads and Glaslok Securi-clip security glazing clips

Glazing beads Internal:

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed light(s)

Hardware/Fixing requirements are as specified for opening, dummy vent and fixed window types.

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Size Limitations and Performance Characteristics – to be read in conjunction with fabrication manual **Alitherm 800 Aluminium Alloy Window System**

Window Type	Length (mm) - Maximum	Height (mm) - Maximum	Area(m²) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Watertightness classification	Resistance to Wind classification	Exposure category asgiven in Table 1 of BS 6375-1
Sash dimensions for window	vs with a	approved	d sash pro	files:					
Projecting top hungs	1400	1300	-	24"	-	3	8A	A2	800
Projecting side hungs	800	1400	-	16"	-	3	E1050	AE	2000
Overall dimensions for wind	lows witl	h approv	ed outer	frame pi	rofiles:				
Fixeds	2100	2100	4.2	-	-	3	E1050	AE	2000
Overall dimensions for approved outer frames & transom/mullion profiles:									
Multilights ETC831 Transom/Mullion	2100	2100	2.9	-	1450	3	E1050	AE	2000

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BS 4873:2016 / PAS 24:2016 - Enhanced security performance requirements for window assemblies.

This Certificate covers the following window system design specification. Only those components that have been approved in accordance with the Kitemark scheme requirement can be incorporated within the system detailed.

Eco Futural Aluminium Alloy Window System

Fabrication and Installation:

Fabricated and installed in accordance with the latest issue(s) of the following

Smart Systems Limited controlled manual(s):

Smart Systems Eco Futural Windows and Doors Manual

System description: The windows are thermally broken, double glazed only, internally or externally

beaded, multipoint locking only, with mechanically fixed transoms/mullions

Ventilation: None

Window Types: Casement windows

Tilt/Turn windows Fixed windows

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed

light(s)

Profiles Outer Frame(s) EF010/EF011/EF019/EF110/EF910/SPD710

Transom/Mullion(s) EF030/EF031/EF032/EF033/EF034/

EF035/EF036/EF130/EF131/EF930

Sash(es) EF020/EF023/EF926

Rebate Reverser (Internal glazing) EF044/EF045/EF945/EF946

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Hardware - Eco Futural Aluminium Alloy Window System

Casement windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier		
Securistyle Defender stays Nico Friction Hinges	Smart Systems	ACET070	Smart Systems		
Securistyle Vector hinge protectors	Smart Systems	ACET066	Smart Systems		
ERA lock ACEF951-956	Smart Systems	Espagnolette & keeps: ACET066	Smart Systems		
ACET081/ACET165 Key locking handles	Smart Systems	ACET069	Smart Systems		
Run-up blocks 4 off per sash	-				

^{*}Glass retention as specified below

Tilt/Turn windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier		
Chrono hinge stays	Smart Systems	Integral within gearing	Smart Systems		
Chrono Safe TiltTurn gearing	Smart Systems	Integral within gearing	Smart Systems		
Tilt/Turn Key locking handles	Smart Systems	ACET069	Smart Systems		
Run-up blocks 4 off per sash	-				

^{*}Glass retention as specified below

Glass retention: External: Glazing beads and Glaslok Securi-clip security glazing clips

> Internal: Glazing beads

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed light(s)

Hardware/Fixing requirements are as specified for opening, dummy vent and fixed window types.

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Size Limitations and Performance Characteristics – to be read in conjunction with fabrication manual **Eco Futural Aluminium Alloy Window System**

Window Type	Length (mm) - Maximum	Height (mm) - Maximum	Area(m²) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Watertightness classification	Resistance to Wind classification	Exposure category asgiven in Table 1 of BS 6375-1
Sash dimensions for window	vs with a	approved	d sash pro	files:					
Projecting top hungs	1440	2500	ı	24"	-	3	8A	A5	2000
Projecting side hungs	840	1440	ı	16"	-	4	E1050	AE2400	2000+
Overall dimensions for wind	ows witl	n approv	ed outer	frame pi	ofiles:				
Fixed	2100	2100	4.2	-	-	3	E1050	AE	2000
Tilt/Turns	1600*	2400	-	-	-	4	E900	AE	2400
Overall dimensions for approved outer frames & transom/mullion profiles:									
Multilights ETC831 Transom/Mullion	2400	2100	3.1	-	1345	4	E1050	AE	2000

^{*}Width of the Tilt/Turn Sash must not exceed 1½ times the height.

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BS 4873:2016 / PAS 24:2016 - Enhanced security performance requirements for window assemblies.

This Certificate covers the following window system design specification. Only those components that have been approved in accordance with the Kitemark scheme requirement can be incorporated within the system detailed.

Alitherm Heritage Aluminium Alloy Window System

Fabrication and Installation:

Fabricated and installed in accordance with the latest issue(s) of the following

Smart Systems Limited controlled manual(s):

Smart Systems Alitherm Heritage Window Manual

System description: The windows are thermally broken, double glazed only, internally or externally

beaded, multipoint locking only, with mechanically fixed transoms/mullions

Ventilation: None

Window Types: Casement windows

Fixed windows

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed

light(s)

Profiles Outer Frame(s) W20015/20016/20017/20018

Transom/Mullion(s) W20032/20034/20035/20037/20039

Sash(es) W20024/20025/20026/20028/20029/20122

Rebate Reverser W20047/20147

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Hardware -

Alitherm Heritage Aluminium Alloy Window System

Casement windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Restrictor stays Nico Friction Hnges	Smart Systems	ACET070	Smart Systems
Securistyle Vector Excluder ASD2 hinge protectors	Smart Systems	ACET066	Smart Systems
Shootbolt/mushroom bolt espagnolette locking system ACW201-205	Smart Systems	Espagnolette & keeps: ACET066	Smart Systems
ACET165 Key locking handles	Smart Systems	ACET069	Smart Systems
Run-up blocks 4 off per sash	-		

^{*}Glass retention as specified below.

Dummy vent windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender stays	Smart Systems	ACET070	Smart Systems

^{*}Glass retention as specified below.

Glass retention: External: Glazing beads and Glaslok Securi-clip security glazing clips

Internal: Glazing beads

Multilight windows comprising opening light(s) and/or dummy vent(s) or fixed light(s)

Hardware/Fixing requirements are as specified for opening, dummy vent and fixed window types.

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No. KM 81580

Size Limitations and Performance Characteristics – to be read in conjunction with fabrication manual **Alitherm Heritage Aluminium Alloy Window System**

Window Type	Length (mm) - Maximum	Height (mm) - Maximum	Area(m²) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Watertightness classification	Resistance to Wind classification	Exposure category asgiven in Table 1 of BS 6375-1
Sash dimensions for winde	ows with a	approved	sash pro	files:					
Projecting top hungs Internally beaded	1400	1400	-	24"	-	4	7A	AE2400	2000+
Projecting top hungs Externally beaded	1400	1400	-	24"	1	4	5A	AE2400	2000+
Projecting side hungs Internally beaded	600	1400	-	16"	-	4	7A	AE2400	2000+
Projecting side hungs Externally beaded	600	1400	-	16"	-	4	5A	AE2400	2000+
Overall dimensions for wir	ndows with	n approve	d outer	frame pi	ofiles:				
Fixeds Internally Beaded	2100	2100	4.2	-	-	4	7A	AE2400	2000+
Fixeds Externally Beaded	2100	2100	4.2	ı	-	4	5A	AE2400	2000+
Overall dimensions for approved outer frames & transom/mullion profiles:									
Multilights W2035 T/M Internally Beaded	2100	2100	2.5	-	1450	4	7A	AE2400	2000+
Multilights W2035 T/M Externally Beaded	2100	2100	2.5	-	1450	4	5A	AE2400	2000+

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BS 4873:2016 / PAS 24:2016 - Enhanced security performance requirements for window assemblies.

This Certificate covers the following window system design specification. Only those components that have been approved in accordance with the Kitemark scheme requirement can be incorporated within the system detailed.

Alitherm Heritage FR90 Aluminium Alloy Window System

Fabrication and Installation:

Fabricated and installed in accordance with the latest issue(s) of the following

Smart Systems Limited controlled manual(s):

Smart Systems Alitherm Heritage FR90 Window Manual

System description: The windows are thermally broken, double glazed only, internally beaded, multipoint

locking only, with mechanically fixed transoms/mullions

Ventilation: None

Window Types: Casement windows

Fixed windows

Multilight windows comprising opening light(s) and/or steel panel

Profiles Outer Frame(s) W20017

Sash(es) W20025 Glazing Bead W20170

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Hardware -

Alitherm Heritage FR90 Aluminium Alloy Window System

Casement windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Top Hung Stays ACINDS24	Smart Systems	ACET070	Smart Systems
Yale Hinge Protector ACET513	Smart Systems	ACET064	
Trojan four point locking espagnolette system ACW203R	Smart Systems	ACET064	Smart Systems
Key locking handles ACET165	Smart Systems	WCA134 SSZ	Smart Systems
Run-up blocks 4 off per sash	-		

^{*}Glass retention as specified below.

Glass retention: Internal: Glazing beads

Multilight windows comprising opening light(s) and/or steel panel

Hardware/Fixing requirements are as specified for opening window.

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Size Limitations and Performance Characteristics – to be read in conjunction with fabrication manual Alitherm Heritage FR90 Aluminium Alloy Window System

Window Type	Length (mm) - Maximum	Height (mm) - Maximum	Area(m²) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Watertightness classification	Resistance to Wind classification	Exposure category asgiven in Table 1 of BS 6375-1
Sash dimensions for windo	ows with a	approved	sash pro	files:					
Projecting top hungs Internally beaded	1100	1200	-	24"	-	4	E750	CE2400	2400
Overall dimensions for windows with approved outer frame & transom/mullion profiles									
Multilights Internally beaded	1100	2500	2.75-	24"	1100	4	E750	CE2400	2400

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