

# SDB

*Aluminium Windows*



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SDB have been supplying and installing aluminium windows for over a decade. At SDB, we offer 4 aluminium window frames from highly reputed and market leading manufacturers. All windows carry a 20 year product guarantee & 10 year (insurance backed) workmanship guarantee.

- **Smarts Systems 'Alitherm 500'**
- **Origin**
- **'Clear View' Sliding Sash**
- **SAPA 'Dual Frame 75' French Casement**

Stylish, slimline, secure, thermally efficient and highly durable frames installed by our professional in house team. All our aluminium windows are bespoke, designed to your measurements and requirements. So whether it be for a new-build, a period property or a modern apartment, SDB can supply and fit windows that will compliment the existing character of your home.





Aluminium windows are highly resistant to corrosion and rust whilst offering strength, higher levels of security and durability. An aluminium window is maintenance free, built to last, it needs only an occasional wipe down to stay looking as good as new. Aluminium is extremely recyclable and very environmentally friendly – its life span is measured in **decades** instead of just years.



Aluminium Windows also allow you to have your windows coloured in one of 200 different RAL colours. It's even possible to have your windows manufactured to have alternate colours on the inside and out. All our products are painted in a polyester powder coat finish, which is renowned for not fading or flaking.



**Clear View** have been designing and manufacturing sliding sash windows in Britain for over 50 years, its all they do, and they do it well. Flush, minimalist site lines offer a sleek and stylish look that will compliment both period and contemporary homes. The sash's can tilt inwards allowing you to easily clean the outer frames and glass. The concealed mechanism adds for a clean frame design and excellent thermal values.

- **Easy clean tilting sash**
- **Concealed mechanism**
- **Flush site lines**
- **2 External 'Georgian Bar' options**
- **Various hardware options**
- **Gloss White frame finish as standard with 150 RAL colour options**



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## CLEARVIEW

### 'Clear View' Hardware Options



### Weather testing

In July 2010 the Alumatherm Sash Window was weather tested at the BBA laboratory in Watford, Hertfordshire. A report was generated No 46675. The test was to BS 6375-1:2009 comprising of BS EN 1026 : 2000 Air permeability, BS EN 1027 : 2000 Watertightness and BS EN 1211 : 2000 Resistance to wind. The window size tested was 1200mm Wide x 1480mm High. The tests investigate the air permeability, water tightness and resistance to wind. From this data a class is given which indicates where the product is suitable for installation in the UK.

The window is calibrated for rig air leakage and then a sample settling in procedure. During the test the window is subjected to water soaking, water spray various air pressures and finally a gust test. All the gust tests are negative and positive. This means the window is sucked outwards and blown inwards. Results achieved were:

Air permeability, Class 3, 600 Pa, UK exposure category 2000

Water tightness, Class 6A, 250 Pa after 4 minutes. A repeat test later provided a 300 pa water tightness result.

Resistance to wind load, Class A5, 2000 Pa. The allowable deformation of the window profile is 7.2mm. Alumatherm 's slim design achieved 1.1mm with positive air pressure and 2.5mm with negative. This result is a fantastic design accolade.

A final safety test was carried out with a safety screen placed in front of the window. Air pressure + and - were applied up to 3600 Pa equivalent to over 150 mph gusts.

The written report stated '*No visible damage, beads stayed in place*'.

### Thermal performance

Alumatherm was put together like a puzzle. Each section was the result of compromises between aesthetics, strength, size, manufacture, cost and thermal performance. We have pushed materials to the limit joining thermal resin, Aluminium, glass and Upvc to produce a window that achieves only 1.7W/m<sup>2</sup>.K. By reducing the air leakage figure even slightly will push the product in to band B. This is to be re tested later this year.

The result for the thermal performance was carried out by Mr Phil Davies from Azon UK Ltd accredited simulators.

Even when the window has a deep bottom rail which means slightly more Aluminium content and slightly less glass the window can still achieve a C rating. Alumatherm still has a C rating when one pane of 4mm Diamant glass is replaced with 6mm Diamant.

Diamant is a low iron glass which makes it clearer which allows more light in. The Inner pane is Planitherm total + which reflects the heat back in to the room. Argon gas insulates the cavity of the unit reducing cold transfer. Warm edge, glass fibre spacer bars reduce cold transmittance through the edge of the unit.



In 35 years **Smart Systems** have grown to be one of the U.K's largest aluminium window manufacturers. **'Alitherm 500'** Offers flush slimline frames with minimalist sight lines for a sleek and clean look that will compliment any period or contemporary property. The Thermally efficient and multi-point locking that exceeds British Standards for security and is PAS24 compliant.

- **Flush site lines (63.5mm)**
- **B window energy rating & 1.4 W/m<sup>2</sup>K U Value can be achieved.**
- **Slim line aluminium frame**
- **Various hardware options**
- **Gloss White frame finish as standard with 150 RAL colour options**
- **Security multi-point steel locking mechanism - PAS24 CERTIFICATED**



### Key Features & Specifications:

High-Security bi-directional pincer multi-point mechanism with key lockable night vent position.

Fully compliant with Doc L of the Building Regulations (Conservation of Fuel and Power).

Compliance with Document Q & PAS 24 certified.

Window Energy Rating up to A.

Concealed Night Ventilation available where required.

Concealed mullions and Transoms with slim sash to sash sightlines of just 102mm.

### Sash Sizes

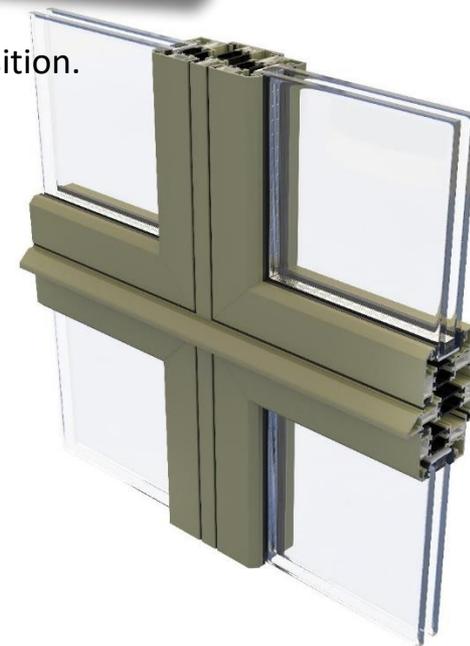
*Top Hung* – max. sash size: 1400x1300mm (40kg)

Friction Stays – (up to and including) 24"

*Side Hung* – max. sash size: 700\*x1400mm (28kg)

Friction Stays – (up to and including) 16"

\*800mm with Fire Escape Hinges





Hardex  
Chrome



Hardex  
Satin



Hardex  
Gold



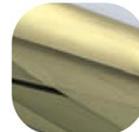
Antique  
Black



Hardex  
Chrome



Hardex  
Satin



Hardex  
Gold



Antique  
Black



White



Black



Silver



Gold





British made **Origin** windows are well renowned for high level of quality and attention to detail, excellent security, thermal values and general build quality. The aesthetics are very clean and sleek with minimal interruptions around the frames. As well as standard + 150 RAL colours there are 4 woodgrains available.

- **High Security – Origin windows exceeds PAS 24:2012 certification**
- **‘B’ window energy rating & 0.9 W/m<sup>2</sup>K U Value can be achieved.**
- **Various high end hardware options**
- **standard frame finish options with 150 RAL colour + 4 woodgrain options**
- **Easi-clean mechanism on side hung configurations between 400-900mm**



Energy Rating From B to A++ (dependant on options)

U value Up to 0.9 W/Km2K (dependant on options)

Air Class 4 (600Pa)

Wind Class B5 (2000Pa)

Water Class E1500 (1500Pa)

### Side hung

Max Height 1800

Max Width 1000

Max Weight 50Kg

### Top hung

Max Height 1500

Max Width 1500

Max Weight 50Kg



Surplus to the standard & 150 RAL colours Origin is also available in 4 textured woodgrains.

Handle's are available in White/Black & brushed steel. A cockspur handle has a nose that juts out of the side of the handle (called a spur). To close the window, the spur slots into a catch on the window frame. It does not have a spindle that goes into the frame and cannot engage a multi-point locking system. An espagnolette handle is most commonly used on new windows. When you turn the handle you engage a spindle that turns various locks in the frame, securing the window. Espag handles are generally considered more secure than cockspur handles, as rather than relying on one lock at the front of the window you engage a multi-point locking system around the frame. The Origin Casement Window features an espagnolette handle that engages an incredibly secure Yale Encloser locking system.

**Natural Oak**



**Golden Oak**



**Mahogany**



**Walnut**



**Cockspur Handle**



**Espagnolette Handle**



Sapa is part of the global aluminium company 'Hydro'. The 'Dual Frame 75' features a **floating mullion** (no fixed centre frame) which offers a French casement. Frames are super thin with minimalist site lines (less frame/more glass).

- Can achieve 'A' Window Energy Rating
- Unique polyamide strip with integral bead retention leg to minimise external projection of the opening light (Patent applied for)
- High security Meets 'Secured By Design'
- Wide range of hardware options



Our Aluminium windows can be glazed with clear, Georgian Bar, Leaded Lights to add a distinct style to your home.





Here at SDB Aluminium Glazing we only use the best glass, Pilkington Glass. The range of low-e energy-efficient glazing that we offer will suit every type of property, from the more modern home to period or traditional styled home, Pilkington glass is a household name and recognised as the world's leading manufacturer of glass and glazing. Have Christmas dinner inside your conservatory! The clever technology inside Pilkington Activ Sunshade glass will help keep the warmth in during winter while keeping the sunshine glare out during summer. Installing low emissivity (low-e) energy-efficient glass will help reduce your heating bills by up to 20% each year. Several self cleaning glass options are also available.

**Pilkington Self-Activ™ cleaning and Solar Control Glass Range**

- **Pilkington Activ™ Clear**
- **Pilkington Activ™ Blue**
- **Pilkington Activ™ Bronze**
- **Pilkington Activ™ SunShade Blue**
- **Pilkington Activ™ SunShade Neutral**

Normal Glass

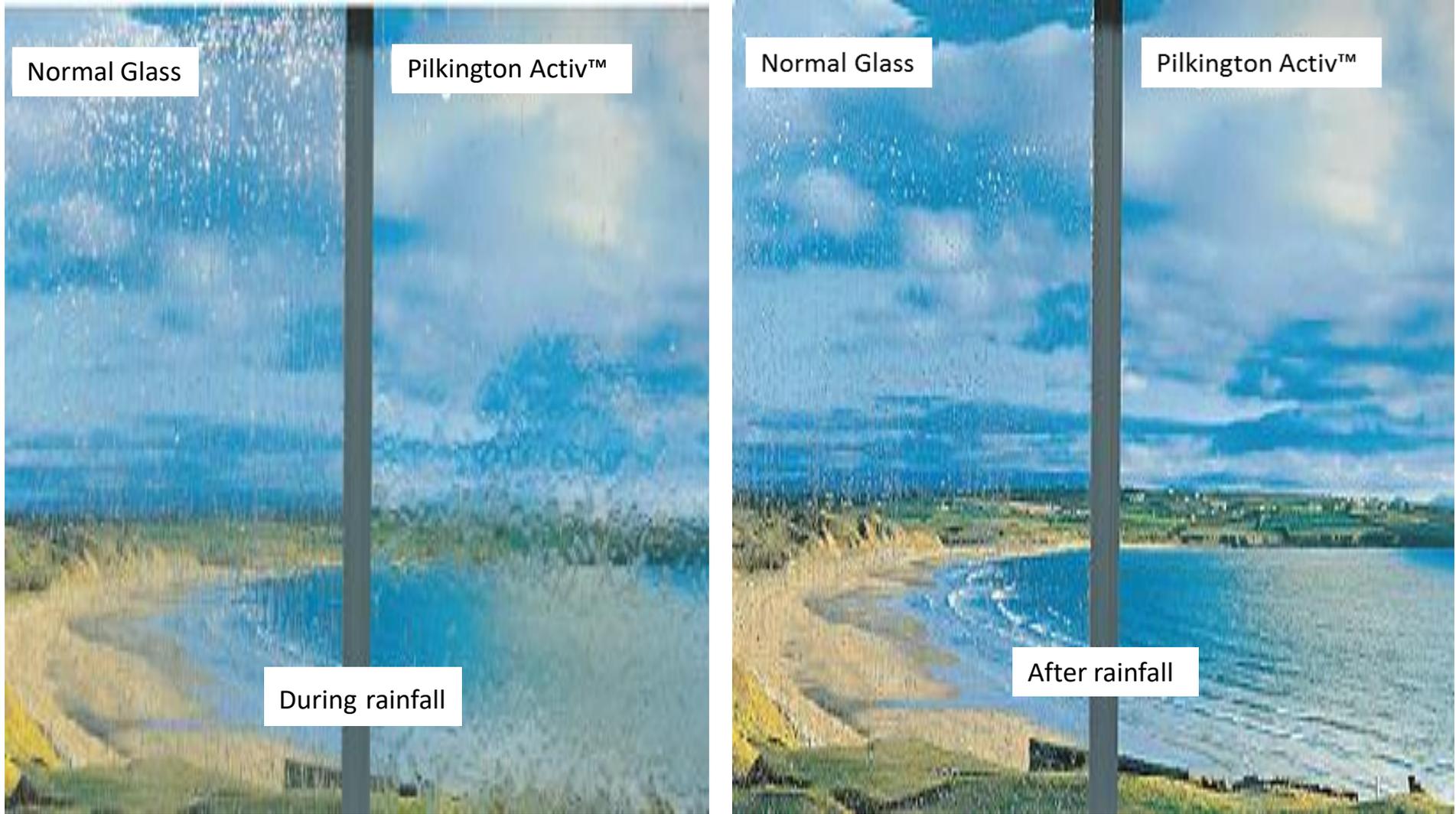
Pilkington Activ™

During rainfall

Normal Glass

Pilkington Activ™

After rainfall



The table below gives a simple comparison between standard double glazing, polycarbonate, and high performance Pilkington **Activ**

Product	Light Transmittance	Solar Heat Rejection	Colour	U <sub>g</sub> -value (W/m <sup>2</sup> K)	Self-cleaning Properties
Uncoated double glazing 4 mm / 12 mm air / 4 mm	0.82	22%	Clear	2.8	N
25 mm polycarbonate	0.68	45%	Clear	1.75	N
Pilkington <b>Insulight Activ</b> <sup>™</sup> (4 mm Pilkington <b>Optitherm</b> <sup>™</sup> S1 Plus inner pane 16 mm 90% argon filled cavity)					
Pilkington <b>Activ SunShade</b> <sup>™</sup> Blue	0.27	80%	Blue	1.0	Y
Pilkington <b>Activ SunShade</b> <sup>™</sup> Neutral	0.42	68%	Neutral*	1.0	Y
Pilkington <b>Activ</b> <sup>™</sup> Blue	0.50	67%	Blue	1.0	Y
Pilkington <b>Activ</b> <sup>™</sup> Bronze	0.49	64%	Bronze	1.0	Y
Pilkington <b>Activ</b> <sup>™</sup> Clear	0.72	N/A	Clear	1.0	Y

\*Note – Pilkington **Activ SunShade**<sup>™</sup> Neutral has a slightly grey appearance.

Pilkington **Activ**<sup>™</sup> is a durable online coating applied to the surface during float glass manufacture.

Pilkington **Activ SunShade**<sup>™</sup> is a combination of the Pilkington **Activ**<sup>™</sup> "online" coating on surface 1 with an additional "offline" coating on surface 2, which provides superior solar control.

The doors can be finished in one of our 4 standard colours or a choice of over 200RAL colours. The powder coat finish is applied to the aluminium extrusions in a controlled factory environment ensuring a high quality finish. For coastal locations the finish can be upgraded to marine grade. Our standard colour range is available in five subtle, natural matt finishes and a gloss white option.



# SDB

01276 485666

sales@sdbaluminium.co.uk



## Visit Our Showroom

We have many aluminium window frames on display at our showroom:

**39 Windsor Road, Chobham, Surrey GU24 8LD**

