

BRINGING GLAZING to life



Uni-Blind's

from Moray

GLASS & GLAZING LTD

INNOVATION COMES BUILT-IN

Morcey_



MORLEY GLASS BRINGING GLAZING TO LIFE

With a passionate commitment to customer service, Morley Glass is the name thousands of customers know they can depend on for high quality glazing, sealed units and integral blinds.

We utilise the most advanced processing technology and, combined with a rigorous quality control system, we manufacture products to the highest standard. That gives us the confidence to offer amongst the longest guarantees in the industry.

MANUFACTURING EXCELLENCE

Our manufacturing excellence is recognised by the fact that we are the only company in the UK licensed to manufacture Screenline® blinds in-house. The highly innovative Uni-Blinds® integral blind systems from Screenline® can be operated manually or electronically. Uni-Blinds® integral blinds eliminate the need for cleaning and maintenance and offer a comprehensive selection of colourways and operational systems.

Our integrity is supported through our membership of the British Blind and Shutter Association (BBSA) - we are in fact the only integral blind manufacturer to have this distinguished membership. All our units are manufactured to the exacting standards laid down by the British Standards Institute BSEN 1279 KM61099.

SUPPLY CHAIN EXCELLENCE

One of the keys to our success is our dedication to building long term relationships with industry-leading suppliers. By having this supply chain excellence, we can deliver on our promise of superb quality products. That's why we work only with international suppliers we can trust, and who are leaders in their respective fields including Pellini Spa, Glassolutions Saint-Gobain and Ritec.





ITALIAN STYLE AND QUALITY FOR YOUR HOME



pellinindustrie

ABOUT PELLINI

Our ScreenLine® range of integral blind systems is manufactured in Italy by Pellini Spa. The family-run business was founded in 1974 and its commitment to quality craftsmanship and innovation has resulted in technically advanced, high performance products that you can rely on.



The blind is operated in a totally sealed environment, protected from dust, dirt or weather conditions; the characteristics of traditional double glazing units are preserved, leaving unaltered the hermetic properties of the cavity. All this is made meeting the requirements of the current standards in terms of energy performances of buildings.

Over the years, ScreenLine® has achieved a high number of significant patents, applying them in a wide range of products designed to meet every need related to sun shading: variety of colours, screening, operation and versatility of application.

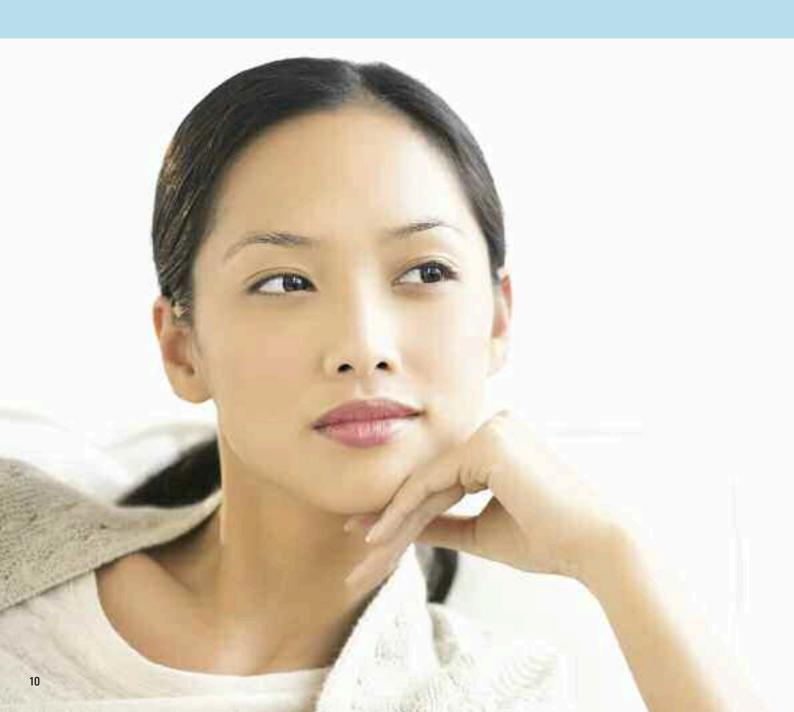


BEING PERMANENTLY SEALED WITHIN THE CAVITY OF THE DOUBLE GLAZED UNITS MAKES UNI-BLINDS UNRIVALLED IN THE CONTROL OF LIGHT AND SHADE, AND THE ONLY VIABLE OPTION FOR LIGHT CONTROL IN BI-FOLDING AND SLIDING DOORS. THE INTEGRAL BLIND SYSTEM ENSURES THAT YOU HAVE ONE OF THE SAFEST BLIND SYSTEMS AVAILABLE.*





ONE CONCEPT: FIVE CONTROL SYSTEMS ONE LEAD TIME 10 DAYS FROM 11AM ON ANY FRIDAY





C SYSTEM MAGNETIC MANUAL CONTROL

All our Uni-Blinds® systems feature the world's number one integral blind system ScreenLine®. The SL20-22C is a patented magnetic system with manual operation (raising and tilting function) for Venetian blinds incorporated within 20mm or 22mm insulating glass units. The external magnetic device, applied on the glass by means of high-resistance adhesive tape contains a cord loop and a magnet that is perfectly interfaced with the magnetic joint of the internal drive, which is completely housed inside the head rail. The cord is kept under tension by means of a special cord tensioner applied to the glass. This magnet principle does not compromise the unit seal and guarantees the integrity of the double-glazing unit.



The ScreenLine® SL20SV system is a manually operated sliding Venetian blind which features a single, cleverly designed magnetic slider to control the whole operation. Positioned on a narrow slide guide on the edge of the sealed unit, the cordless magnetic slider allows the blind to be raised, lowered and tilted effortlessly.



The ScreenLine® SL20-22S is a manual system comprising a 14mm pleated blind integrated within a double glazed unit with 20mm or 22mm cavity. The blind movement is achieved by a magnetic device positioned centrally on the outer surface of the internal pane sliding across the glass surface. This external magnet interfaces with a similar internal magnet located in the movable headrail to absorb possible glass deflections. The blind can be adjusted at any inclination and raised in all directions, making it an ideal system for attic, dormer and skylight applications.



The SL20-22W-Swipe Uni-Blinds® system with ScreenLine® inside is a battery operated, motorised blind system. With this system, a Venetian or pleated blind encapsulated within a double glazed unit can be raised or lowered via a control device magnetically attached to the window or, more comfortably, by remote control. The system operates with standard, long-life rechargeable batteries and is equipped with a cleverly designed external energy saving solar panel.

The system can be fitted quickly and easily and can be applied to all types of window frames, even existing ones. No wires of electrical contacts are required and internal glass thickness is irrelevant. It is equally suitable for residential and commercial environments as it needs no maintenance.



The addition of a brushless motor is a significant improvement on previous electrical systems used for raising/lowering and tilting integral Venetian or pleated blinds. It allows (by means of an encoder) the simultaneous and synchronised operation of several blinds and the accurate tilting of the slats. No other control device is applied on glass or window frame, since the motor is activated by means of wall-mounted push buttons or remote control (options). Manufactured from high quality materials, coupled with the purity of aesthetic appearance and technical excellence, the SL20-22MB system is particularly suited to prestigious projects, especially the exclusive contemporary domestic market.

ONE CONCEPT: **FIVE CONTROL SYSTEMS ONE ENERGY EFFICIENCY BAR**

ENERGY EFFICIENCY – BUILT-IN

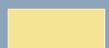
- All Uni-Blinds® feature a warm edge spacer bar to ensure the thermal insulation of the sealed unit is maximised.
- This stainless steel spacer bar is co-extruded with polypropylene to enhance the benefits of all ScreenLine® integral blinds systems with energy saving qualities - all within the perfect hermetic seal.
- Reduces the generation of humidity on the glass perimeter.
- Improves the thermal insulation of the profile due to its low thermal conductivity.
- Ensures a low Psi value (halving heat transmission through the perimeter compared to a standard extruded aluminium spacer bar).
- Reduces the thermal transmittance value of the window, irrespective of the material used for the frame.
- Our dedicated integral blind warm edge spacer is available in black as standard or light grey upon request.

WILL THEY MATCH MY COLOUR **SCHEME?**

AVAILABLE IN A RANGE OF COLOURS



Solar reflection 70% Light reflection 78% Solar absorption 30%

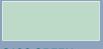


S106 YELLOW

Solar reflection 62%



Solar reflection 57% Light reflection 63% Solar absorption 43%



S130 GREEN

Solar reflection 58% Light reflection 65% Solar absorption 42%



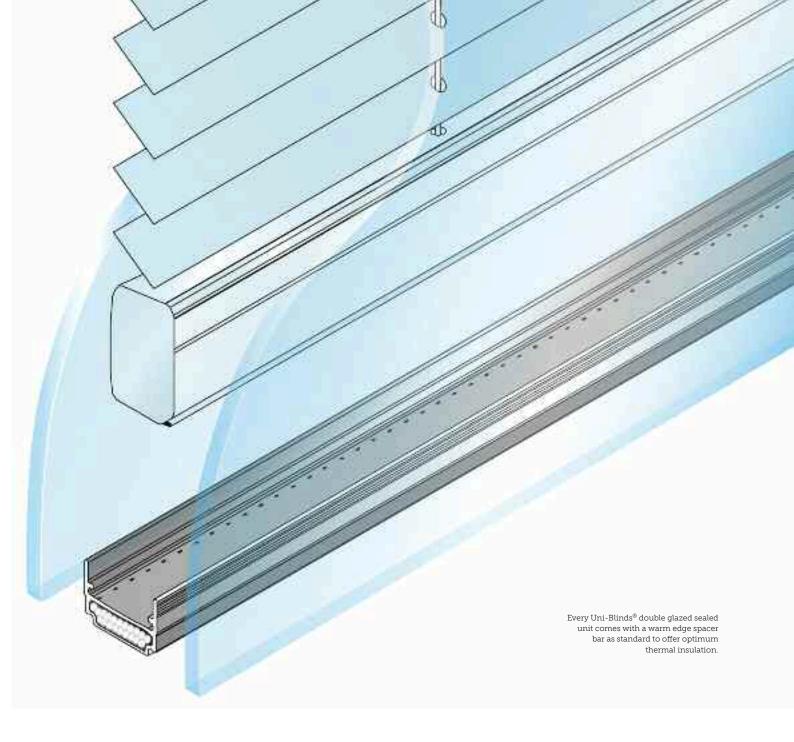
S142 LIGHT BLUE

Solar reflection 65% Light reflection 69% Solar absorption 35%



S149 CREAM

Solar reflection 68% Light reflection 75% Solar absorption 32%



\$155 GREY Solar reflection 42% Light reflection 48% Solar absorption 59%



S156 METALLIC SILVER

Solar reflection 65% Light reflection 62% Solar absorption 35%

S157 SILVER

Solar reflection 43% Light reflection 44% Solar absorption 57%

Swatches available on request.

ANTHRACITE GREY

EXCLUSIVE NEW COLOUR



S159 ANTHRACITE Solar reflection 12% Light reflection 13% Solar absorption 88%

MANUAL CONTROL LIGHT AND SHADE WITH THE C SYSTEM

The SL20C system is manufactured in accordance with the highest technical specifications and production standards.

The slat raising, lowering and tilting function is achieved using a rotational magnetic transmission through the glass thereby guaranteeing the unit's hermetic seal.

We are the only UK company able to supply this system within 10 working days.*



Blinds open.



Blinds partially closed.



Blinds fully closed.



MAIN FEATURES

- Suitable for all vertical window applications
- Ideal solution for conservatory shading
- Total privacy and light control for folding sliding doors
- Gives excellent utilisation of partitioned office space
- Suitable for retro installation into existing frames
- Only viable option for bi-folding doors

DELIVERED EXCLUSIVELY WITHIN 10 WORKING DAYS*





DESIGNED TO MAXIMISE YOUR OPTIONS FOR LIGHT AND SHADE CONTROL

The external magnet, fixed to the internal glass by double-sided high performance adhesive, allows perfect alignment with the internal magnet.

Raising and lowering is controlled using a continuous cord loop that drives the external magnet. The cord is held lightly under tension by a cord tensioner and fully complies with 'make it safe'.*

*Campaign in association with the British Blind and Shutter Association code of practice







Control knob



Crank handle knob



Wand operation (tilt only use)



Crank handle key

Feasibility chart

Glass thickness (mm)

6-33.1		Direct ir	temal	contro	ol	1,80	Reduced internal control		2,20		
4-5		Direct in	temal	contro	ol				2,20		
0,	00	0,	50	1,0	00	1,	50	2,0	00	2,	50
Maximum area (in m²)											

 with W = from 300 to 350mm
 Max H

 with W = from 351 to 400mm
 Max H

 with W = from 401 to 450mm
 Max H

 Max W 2000mm
 Max H

Max H = 850mm Max H = 1550mm Max H = 1950mm Max H = 2500mm

BE IN FULL CONTROL OF THE LIGHT IN YOUR HOME

So how are they actually operated? There are several different ways in which they work, and it is really down to preference.

Venitian Blinds can be operated by a rotational cord winder attached at the top of the room-facing pane of the double glazed unit (as can be seen in the picture), or by a 'wand' (a small pole attached at the top to the room-facing pane of the double glazed unit) which is twisted to open and close the blind.





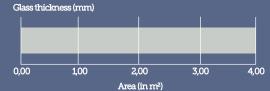






Morley Glass has developed a unique control box for motorised blinds which eliminates installation issues and provides an aesthetically pleasing solution for control at your fingertips. The control boxes are supplied pre-wired and fully tested, making for a smooth problem-free installation. Integration with home automation systems is also possible.

Feasibility chart



Possible dimensions

W min = 300mm W max = 2000mr H min = 300mm H max = 2600mm

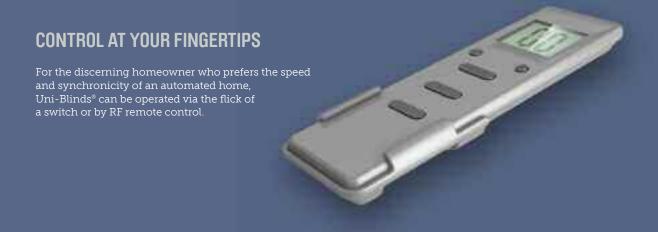
Maximum height possible according to width

 $\begin{array}{ll} \text{with W = from 300 to 350mm} & \text{Max H = 1670mm*} \\ \text{with W = from 351 to 400mm} & \text{Max H = 2020mm*} \\ \text{with W = from 401 to 2000mm} & \text{Max H = 2600mm*} \end{array}$

- * Up to 2600mm (H), blind supplied with tilt-only function and locked bottom rail
- For areas from 4.01m² to 5.2m², blind supplied with tilt-only function and completely raised



Manufactured from high quality materials, coupled with the purity of aesthetic appearance and technical excellence, the system is particularly suited to prestigious projects, especially the exclusive contemporary domestic market. And now exclusively supplied in 10 working days when ordered on a Friday.





WIRE-FREE SOLAR POWERED, ECO-FRIENDLY SIMPLICITY WITH THE W SWIPE

The latest in innovative and ecological Italian design, the W Swipe is a battery operated, motorised blind system utilising Venetian or pleated blinds, encapsulated within a 20, 22 or 27mm cavity double glazed unit. The encapsulated blind is raised and lowered, and in the case of the Venetian blind, slat-tilted via a discreet slide button control which is magnetically attached to the double glazed unit.



BENEFITS

- Streamlined installation procedure
- No need for electrician to install
- Hard-wired power supply not required
- Energy saving
- For 20, 22 and 27mm cavity, in Venetian and pleated versions
- Small sized battery module, developed in co-operation with design specialists
- Touch control keys
- Radio remote control supplied as standard
- Batteries recharged by means of a micro-USB connector
- Batteries can be easily replaced

THE W SWIPE IS POWERED AND CHARGED VIA AN EXTERNAL SOLAR PANEL

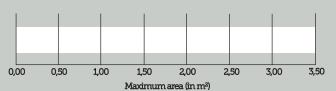
The system is powered by standard long-life rechargeable batteries and is supplied with a cleverly designed battery charger. A remote control option is also available.

As well as private and domestic situations, this system is particularly suited to commercial installations such as medical and educational environments, offices, schools and colleges.



Feasibility chart

Glass thickness (mm)



with W = from 250 to 300mm with W = from 301 to 350mm Max W 2000mm Max H = 950mm Max H = 1700mm Max H = 2500mm

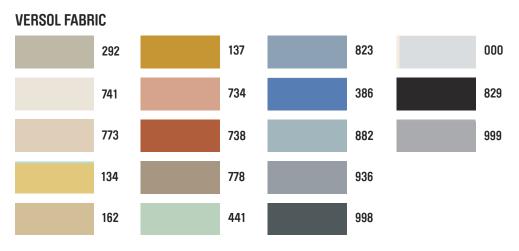


OUR NEW W SWIPE BATTERY PACK SL2380 Battery Module available in anthracite grey S159

PLEATED BLINDS – A HIGH PERFORMANCE ALTERNATIVE

Our range of stylish pleated blinds are manufactured from woven polyester fabric in a wide range of colour options so they're able to perfectly complement any interior. Allowing a soft diffusion of light, integral pleated blinds are an attractive, elegant blind solution with a number of practical benefits. A stylish blind style, pleated blinds benefit from their ability to fold neatly away to provide you with clear views - perfect for any window or conservatory.

AVAILABLE IN A RANGE OF COLOURS



For all the above:

Light transmission 4% Solar reflection 67% Solar transmission 4% Openness factor 0.5% UV Transmission 3%

Colours are for illustration purposes only. Colour swatches available on request.

VANITY FABRIC

CO10 Cream Solar reflection 40% Light transmission 46% Light absorption 14%

COOO White

COOO White Solar reflection 45% Light transmission 50% Light absorption 5%

The Vanity fabrics have a uniform colour throughout the fabric i.e. the internal and external surfaces are the same colour.





WE MANUFACTURE AND DISTRIBUTE NATIONWIDE

Our exclusive contract to manufacture integral pleated C and S System Uni-Blinds® in the UK, gives us the unprecedented capability to manufacture and distribute nationwide within five working days. Our operatives have been trained in Italy to manufacture this market leading product to the exacting standards required.





SLIDE GUIDE AND HEAD RAIL **COLOURS**



EXTERNAL SLIDER COLOUR



CONSERVATORIES

... RAISING











⋰ TILTING





This Venetian blind system is manually-operated and utilises a patented magnetic device to operate the blinds encapsulated within 20mm cavity double glazing units.

A magnetic slider, placed on the right or left-hand edge of the glass, allows the slats to be raised and tilted. The

external slider "logically" moves in the same direction as the blind operating direction. The blind is raised and lowered by moving the slider down or up and is tilted by slightly lifting or lowering the same slider.

The system can be applied to all types of window frames, even sliding ones,

DIMENSIONS

Cavity: 20mm

Width (mm): 300 - 1500 Height (mm): 600 - 2000

Maximum area: 2.0m² with 4mm internal glass **and** 1.5m² with 6mm

internal glass

Minimum height available: 600mm

FEASIBILITY NOTES

Maximum height possible according to width

with W from 300 to 350 mm H max = 1400 mm

with W from 351 to 550 mm H max = 1800 mm

with W from 551 to 1500 mm H max = 2000 mm

owing to the slim design of the control device.

Equipped with a warm edge spacer bar as standard the SV System offers high energy performance and, consequently, savings on heating and air conditioning costs.

BENEFITS OF THE SL2OSV CORDLESS SLIDER

- Closed-loop belt transmission system allows smooth and long-lasting function of the blind
- The external magnetic slider is treated with the Sanitized[®]* patented antibacterial finish, which provides a long-lasting protective function
- The patented warm edge spacer bars and the plastic side profile improve the energy performance of the insulating glass unit
- Meets the requirements of child safety standards
- Only one device is used to raise and tilt the slats.

HYGIENE

The external magnetic slider is treated with the Sanitized® patented antibacterial finish. The active biocidal substance contains silver ions to provide a long-lasting protective function.

ENERGY

The patented warm edge spacer bars and the plastic side profile improve the energy performance of the insulating glass unit. This delivers the best of both worlds - stylish doors and windows which save energy too.



DESIGN

The slider and the external guide were developed in co-operation with professional designers for superior aesthetics. This delivers superb looking doors and windows every time.

PATENTED TECHNOLOGY

Innovation goes to the core of the SL20SV with a patent-pending system of internal cord winding on the tube which considerably reduces the blind friction.

LIFESPAN

The closed-loop belt transmission system allows smooth and long-lasting function of the blind for total reliability and peace of mind.

VERSATILITY

Applicable to all types of door and window frames, even sliding ones, thanks to the slim dimensions of the control device.



SAFETY

Meets the requirements of child safety standards as recommended by the BBSA.

USER FRIENDLY

Only one device is used to raise and tilt the slats





B SYSTEM

The B System is the new patented manual magnetic blind system manufactured by Uni-Blinds $^{\circ}$ and available from Morley Glass θ Glazing. The Venetian blinds are encapsulated within a 20 or 22mm cavity with tilt only function.

The external magnetic device is placed on the glass on the lower based rail. Motion is transmitted via two gears located in the top and bottom corner keys of the blind, which are connected to each other by means of a shaft which is completely concealed inside the spacer bar.

The system is particularly suitable for windowsill applications, such as structural facades, hospital wards and schools as the control device is located at the bottom of the blind, making it readily accessible from a low level or seated position.

DELIVERED WITHIN 4 WEEKS



P SYSTEM

The P System comprises a Venetian blind incorporating a 12.5mm slat designed to be integrated in a double glazed unit with a 20mm cavity.

The manual tilt only function is operated via a wire drive by an external knob. The specially designed corner key containing the rotational magnet is connected to the external knob by a flexible drive cable located within the glazing cavity of the window frame. Due to the narrow cavity (20mm), the system can be used in almost all types of existing window frames, whilst the special design allows the aesthetic quality to be maintained in whatever environment it is installed. The only visible control is the external knob fixed to the window frame, allowing the glass surface to remain completely free and easy to clean.

These particular features make the P System ideal for public environments such as hospitals or government offices where a variety of people need to operate this simple but highly protected system. It can also be modified to incorporate a 16mm slat for integration in a 24mm cavity unit.

DELIVERED WITHIN 4 WEEKS







Plastic antiligature knob colour choices



Antiligature knob stainless steel



UNI-BLINDS® AT THE FOREFRONT OF BLIND SAFETY

A primary consideration of family living space must always be safety. As would be expected from the UK's largest supplier of integral blinds, all Uni-Blinds® fully conform to the guidelines laid down by the British Blind and Shutter Association and none of our products are recommended for installation with free hanging cords which is a major concern for families with children.

The risks are eliminated using Uni-Blinds® because the external cord mechanism is held securely against the double glazed unit and by using the bottom cord tensioner. A safety break is incorporated into the top external magnetic device. Uni-Blinds® 1600mm high and above are supplied with a standard cord length of 1000mm with other lengths available on request.

Morley Glass & Glazing is the only UK integral blind manufacturer and supplier affiliated with the BBSA.

TENSIONER

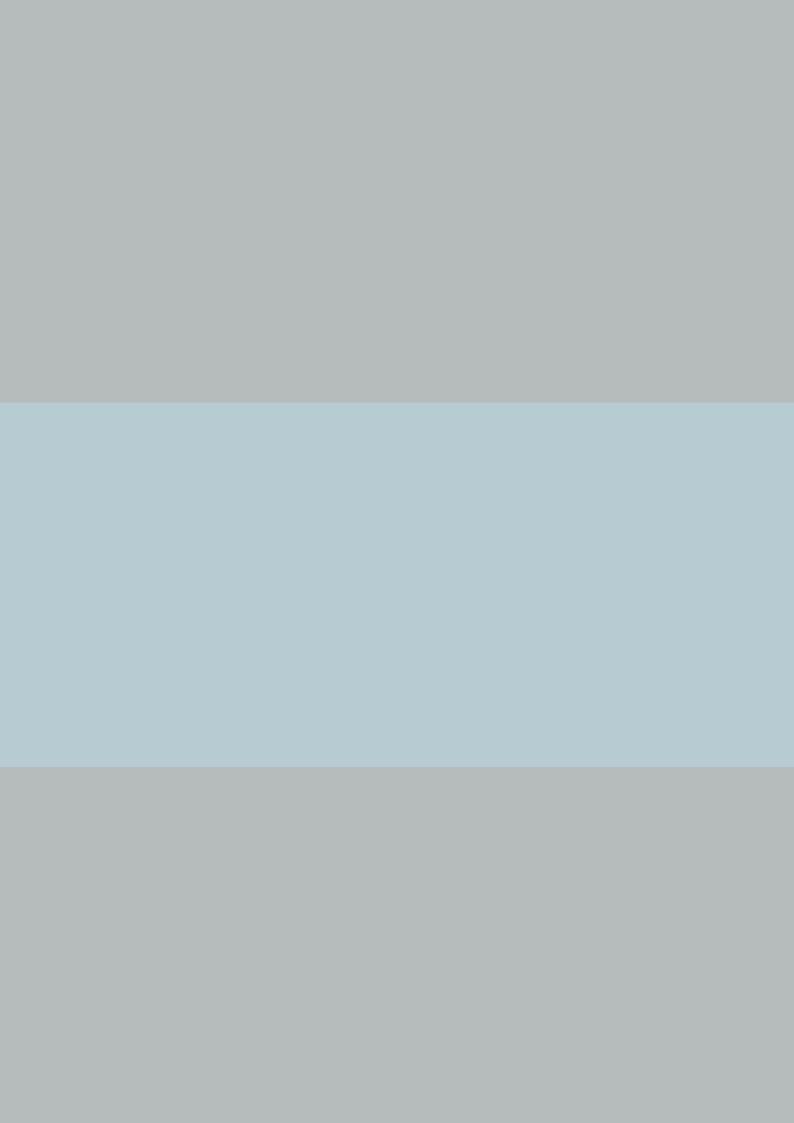
This holds the cord securely against the glass so that it is out of reach from children. The cord/chain is then secured as shown in the image opposite.

Thanks to their patented automatic release system, Uni-Blinds' eliminate the risk from looped blind cords and chains















Your glass. Our world.

QUALITY AND HERITAGE IN EQUAL PROPORTIONS

All our glass is supplied by GLASSOLUTIONS, the UK's largest processor, distributor, installer and repairer of glass and glass systems. The company has a long heritage of manufacturing glass and is part of the global building products company Saint-Gobain, which is more than 350 years old. GLASSOLUTIONS provides Morley Glass and our customers with the best of worlds - solid financial foundations and technical back-up, plus the flexibility and autonomy to best meet the needs of the LIK market

Saint-Gobain is present in 64 countries and employs over 190,000 people worldwide, including over 17,000 in the UK & Ireland. It was founded in 1665 to deliver a world first - the production of glass on an industrial scale - and has continued to grow its business via the ongoing development of new services, products and ways of working with customers.

As one of the world's top 100 innovators, Saint-Gobain spends €400m a year on R&D globally, tackling some of the biggest challenges of our time. One in five products manufactured by Saint-Gobain did not exist five years ago.

In the UK and Ireland, some of the best known and respected companies in the construction sector are part of the Group, including British Gypsum, Isover, Glassolutions, Saint-Gobain Weber, Saint-Gobain Glass, Saint-Gobain PAM, Pasquill, Celotex and Ecophon. Together they offer a range of high performance energy-saving products and solutions to help create a more sustainable built environment.









INNOVATIONS IN GLAZING

TECHNOLOGICALLY ADVANCED GLAZING PROVIDES YEAR-ROUND COMFORT, KEEPING YOU WARM IN WINTER AND COOL IN SUMMER.

All sealed units and Uni-Blinds $^\circ$ from Morley Glass & Glazing provide the optimum combination of insulation when you need it, while preventing rooms over-heating during the summer.

We make this possible by using only the UK-made Planitherm series of glass supplied by industry-leading glass processor GLASSOLUTIONS. Planitherm is a family of high-performing low-E glass products with several options to best suit the multi-functional demands on any window, door, conservatory or façade.

Double and triple glazed sealed units are available featuring:

- Planitherm Total+
- Planitherm One
- Planitherm 4S

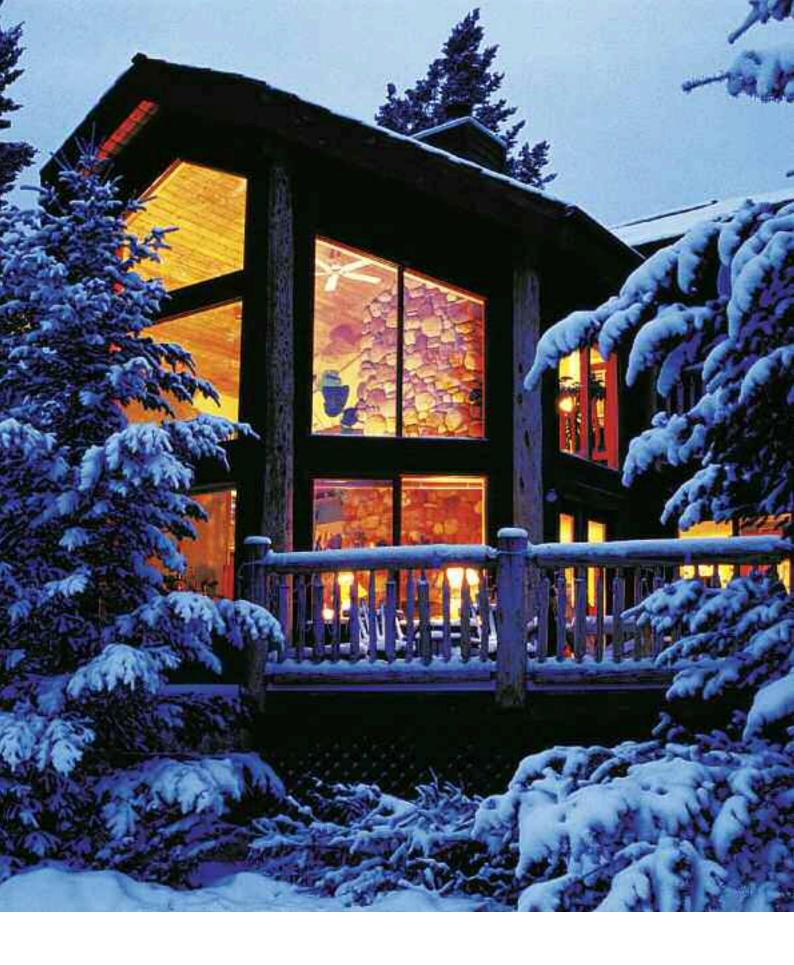
The exact specification of your sealed unit will depend on the application, not least the size and orientation of the window or door. So we're here to provide all the support our customers need to achieve the best result.

The Planitherm series is used for all our EcoClear Plus double and triple glazed sealed units which deliver windows and doors with wide ranging aesthetic and comfort benefits:

- helps to eliminate cold areas around windows resulting in greater comfort
- reduces incidence of condensation on the inner pane
- neutral appearance in both transmission and reflection
- maximises entry of natural daylight
- maximises use of living and working areas.







PLANITHERM TOTAL+

The difference is clear with Planitherm Total+. This high quality glass combines excellent thermal performance with the ultimate in clarity thanks to a microscopically thin coating which is virtually invisible.

Planitherm Total+ sealed units are perfect for general fenestration requirements being compatible with achieving A Window Energy Ratings (WERs).

SGG Planitherm Total+ is one of the most energy efficient window glass products available today.

ENHANCED THERMAL INSULATION

Double glazed units incorporating SGG lanitherm Total+ offer up to three times more insulation than standard double glazing and significantly better thermal insulation compared to hard coated low-E products:

- Considerable reductions in heating bills
- Eliminates cold areas around windows
- Maximises the amount of natural light into the home, without haze or tint effects
- Helps to reduce condensation on the inner pane
- Environmentally friendly solution, given the lower CO₂ emissions associated with reduced energy consumption
- Ensures compliance with current Building Regulations requirements for all frame types or designs
- Exceptional Window Energy Rating performance thanks to the optimised balance between a very low U-value and even higher solar gain.



COMPETITORS' THERMALLY INSULATED GLASS

No unsightly tint or 'haze' effect - unlike traditional low-E coatings that suffer from an unsightly yellow tint, Planitherm Total+ looks very clear. This means your curtains or Georgian Bars will not look dirty or discoloured.

More light - less tint also means more light can enter the room, making it more comfortable and luminous. **SGG PLANITHERM TOTAL+**

PLANITHERM HAS THE BEST LIGHT TRANSMISSION PROPERTIES COMPARED TO ALL COMPETITOR PRODUCTS



TECHNICAL SPECIFICATIONS

Performance Data	DGU		TGU			
Internal Pane	SGG PLANITHERM TOTAL+					
External Pane	SGG PLANICLEAR	SGG DIAMANT	SGG PLANICLEAR	SGG DIAMANT		
Composition in mm	4(4(16)4		4(16)4(16)4		
Low-Emissivity Coating Position	Face 3		Face 3/5			
Light Transmission	81%		72%	73%		
Light Reflectance	1	12%		16%		
LRi	13%		16%			
T	64%	66%	52%	53%		
RE	20%	21%	25%	26%		
A1	6%	3%	6%	3%		
A2	9%	10%	11%	11%		
A3	-	-	6%	7%		
g-value	0.73	0.75	0.63	0.64		
Shading Coefficient	0.83	0.86	0.72	0.74		
U-value in W/m²K** - Air	1.4		0.8			
90% Argon	1.2		0.6			

sgg PLANITHERM TOTAL+ meets the durability requirements of class C of European standards EN 1096 and is marked.

* Light and solar performance according to EN 410.

** Centre-pane U-values have been rounded in accordance with EN 673.

For Window Energy Ratings simulators should calculate whole window U-values from first principals using normal surface emissivity ($\epsilon = 0.05$).





PLANITHERM ONE

Superior performance "single-stock" low-E glass with an optimum centre-pane U-value of 1.0 W/m^2K "

Designed specifically to minimise heat loss, Planitherm One is ideal for achieving the lowest U-values. The advanced coating of Planitherm One offers insulating levels far in excess of the minimum requirements set out in Approved Document L of the Building Regulations.

A double glazed sealed unit featuring Planitherm One will deliver an optimum centre-pane U-value of 1.0W/m²K (16mm, 90% argon-filled cavity). This can help with any new build project, especially those in which permissible trade-offs are sought to meet overall performance requirements for a dwelling.

SGG PLANITHERM ONE represents the most advanced thermal insulation performance within the SGG PLANITHERM family, Europe's best selling low-emissivity (low-E) glass and one of the UK's leading offline low-E coating brands.

COMFORT & AESTHETICS

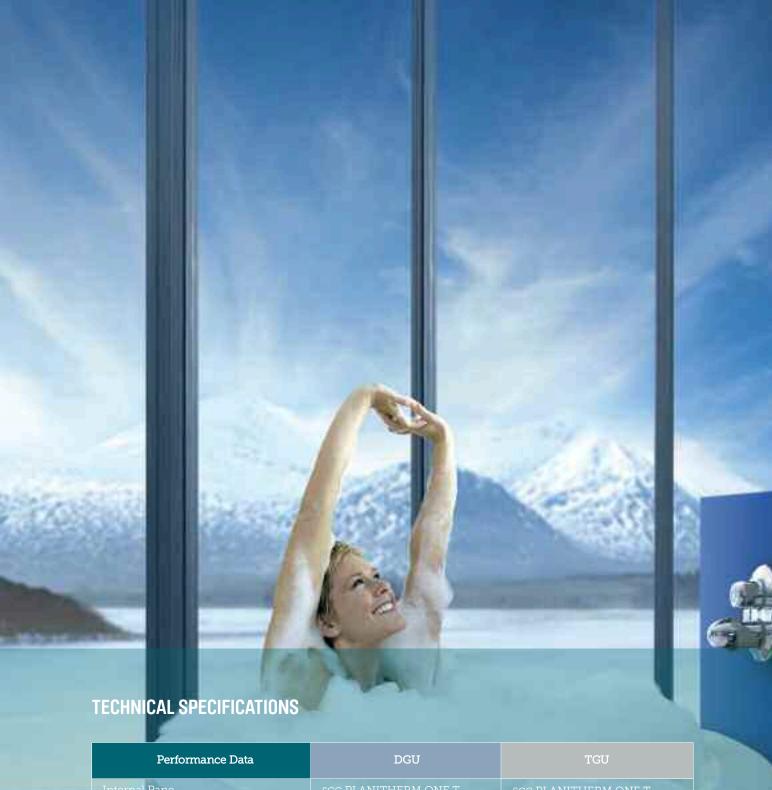
- Helps to eliminate cold areas around windows resulting in greater comfort
- Reduces incidence of condensation on the inner pane
- Neutral appearance in both transmission and reflection
- Maximises entry of natural daylight
- Maximises use of living and working areas

U-value	1.0 W/m ² K (4(16)4 unit with 90% argon gas filling)
Light transmittance	71%
Light reflectance	21%
Solar factor	52%

ENHANCED THERMAL INSULATION

- With an optimum centre-pane U-value of 1.0W/m²K (16mm, 90% argon-filled cavity), SGG PLANITHERM ONE T can comfortably meet current Building Regulations by improving whole window U-values for all frame types
- Particularly suited to residential new build and light commercial new build and renovation applications using steel and aluminium frames
- Considerable reductions in heating over standard glass
- Environmentally friendly solution, given the lower CO₂ emissions associated with reduced energy consumption





Performance Data	DGU		TGU	
Internal Pane	SGG PLANITHERM ONE T		SGG PLANITHERM ONE T	
External Pane	SGG PLANICLEAR		SGG PLANICLEAR	
Composition in mm	4(16)4	6(16)6	4(16)4(16)4	
Low-Emissivity Coating Position	Face 3		Face 3/5	
Light Transmission	70%	69%	55%	
Light Reflectance	21%	21%	30%	
LRi	23%	23%	32%	
g-value	0.55	0.54	0.42	
Shading Coefficient	0.63	0.62	0.49	
U-value in W/m²K Air	1.3	1.3	0.7	
90% Argon	1.0	1.0	0.5	



PLANITHERM 4S

There is no better glazing solution for conservatory side walls than Planitherm 4S. It offers a high level of thermal insulation in colder months but with the benefit of being able to manage the risk of excess heat gain even in the strongest, direct summertime sunshine.

That's why we call it 4 Seasons - whatever time of year, Planitherm 4S has the right blend of multifunctionality to provide an effective solution.

U-value	1.0 W/m ² K (4(16)4 unit with 90% argon gas filling)
Light transmittance	70%
Light reflectance	21%
Solar factor	73%





KEEP COOL IN SUMMER

For ROOFS when combined with special dual-coated self-cleaning and solar control glass



HEAT REFLECTION



GLARE REDUCTION



If used alone in a DGU for SIDEWALLS



HEAT REFLECTION



ATTRACTIVE NEUTRAL APPEARANCE

KEEP WARM IN WINTER

For ROOFS when combined with special dual-coated self-cleaning and solar control glass



LESS HEAT LOSS COMPARED TO ORDINARY DOUBLE GLAZING 63%



COLD SPOTS AND DRAFTS REDUCED



REDUCED CONDENSATION



UNBEATABLE THERMAL INSULATION U-VALUE OF 1 O W/M²K



SAVE £s ON YOUR HEATING BILLS

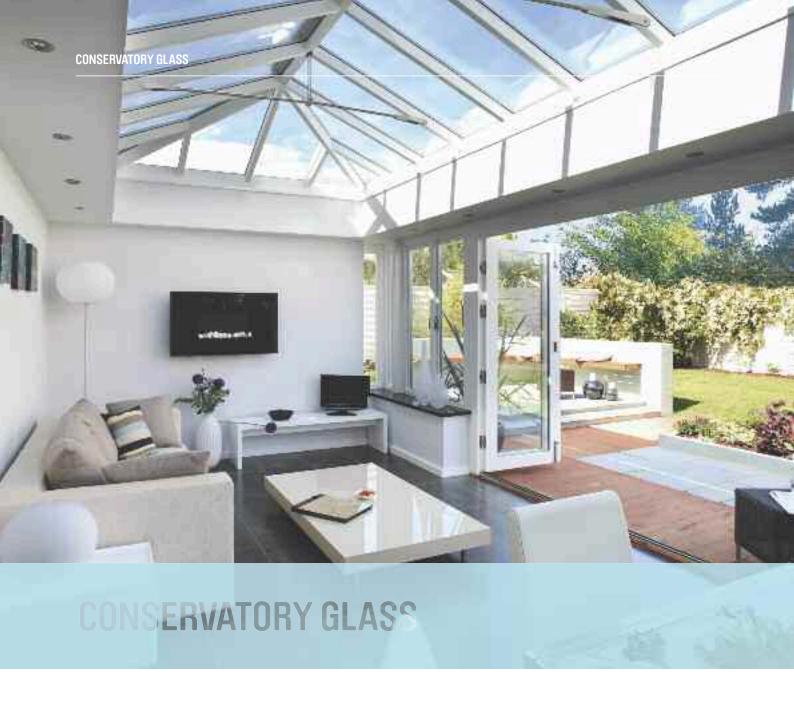
PRODUCT APPLICATION

SGG PLANITHERM 4S is designed for use in double glazing applications, in all frame types for both residential new-build and replacement markets:

- Windows and skylights in residential buildings and private domestic housing
- Conservatories and patio doors

ADVANTAGES

- Thermal insulation: reduces heat loss more effectively than traditional low-E products
- Solar protection: reflects up to 56% of solar heat gain through conservatory sidewalls and as much as 79% when used in conjunction with SGG BIOCLEAN AQUA in the roof areas
- Energy efficient: reduced need for heating and cooling protects the environment and saves you money
- Visual comfort: maximising natural light and reducing glare provides an enhanced level of visual comfort
- Neutral appearance: beautiful neutral appearance matches the rest of your glazing.



SEE THE POSSIBILITIES AND FEEL THE BENEFITS WITH YEAR ROUND COMFORT

The potential uses of a conservatory are as diverse as the designs available. Some are looking to add extra living space that can be used year round as a dining room, children's playroom, home office or similar, while others are looking to create a seamless, visually connected link between home and garden.

Conservatories can offer a bright and airy place to relax and enjoy uninterrupted views of outside whilst maintaining a comfortable inside ambience. When choosing a conservatory you need to ensure that it will match your own specific lifestyle requirements and it is here that the right choice of glass is key. By considering a combination of SAINT-GOBAIN GLASS products and tint finishes you can create the conservatory that is perfect for you.





HEAT REFLECTION: measured by taking the opposite or inverse of the glazing solar factor. Solar Factor is the percentage of the total solar radiant heat energy entering the room through the glass. Reflects up to 78% of the sun's heat, keeping the conservatory up to 9°C cooler in the summer.



THERMAL INSULATION: A measure of the rate of heat loss through the glazing. A principle reason for installing energy efficient glass, the lower the U-value the better the glass is at retaining heat. 63% better insulation than standard glass, keeping you warmer in winter and saving you money on your heating bills.



SELF-CLEANING GLASS: The self-cleaning coating is fully integrated into the surface of the glass ensuring its permanency. In a process called 'catalysis' the coating uses UV rays from the sun to break down organic dirt and turns the surface hydrophilic. Rain or hose pipe water then forms a sheet of water and rinses the dirt away, reducing the need for manual cleaning. Also prevents water droplets from forming which means clear views, even when it's raining.



GLARE REDUCTION: Measured by the inverse of 'light transmission', the proportion of the visible light spectrum that is transmitted through the glass. It is important to reduce the transmission of concentrated light, especially in the roof, to maximise visual comfort. Reduces up to 68% of the sun's glare, maximising visual comfort on the brightest of days. Like sunglasses for your roof!



 $\begin{tabular}{ll} \begin{tabular}{ll} VIRTUAL ELIMINATION OF CONDENSATION: Internal condensation will only begin to form at an average external temperature of -11°C (in timber/PVCu frames at an internal temperature of 20°C and 50% relative humidity). \end{tabular}$

YOUR CHOICE OF GLASS FOR THE ROOF AND VERTICAL GLAZING WILL HAVE A MAJOR IMPACT ON THE OVERALL FEEL AND COMFORT OF YOUR CONSERVATORY

Choosing the right glass is perhaps one of the most important decisions that you will need to make, but it needn't be a tough one. The following comparison chart is designed to help you choose the perfect combination of SAINT-GOBAIN GLASS products that will enable your new conservatory to exactly match your specific criteria.

Application	Inner pane	Outer pane	Heat reflection	Glare reduction	U-values	Reduced condensation	Naturally self-cleaning
Roofs	Bioclean AQUA	Planitherm 4S	78%	68%	1.0 (W/m²k)	✓	✓
Roofs	Bioclean NATURA	Planitherm 4S	71%	63%	1.0 (W/m ² k)	V	V
Roofs	Bioclean AZURA	Planitherm 4S	67%	53%	1.0 (W/m ² k)	V	✓
Roofs	Bioclean SOLARA	Planitherm 4S	66%	58%	1.0 (W/m ² k)	V	✓
Roofs	Planitherm 4S	Float glass	57%	35%	1.0 (W/m ² k)	V	



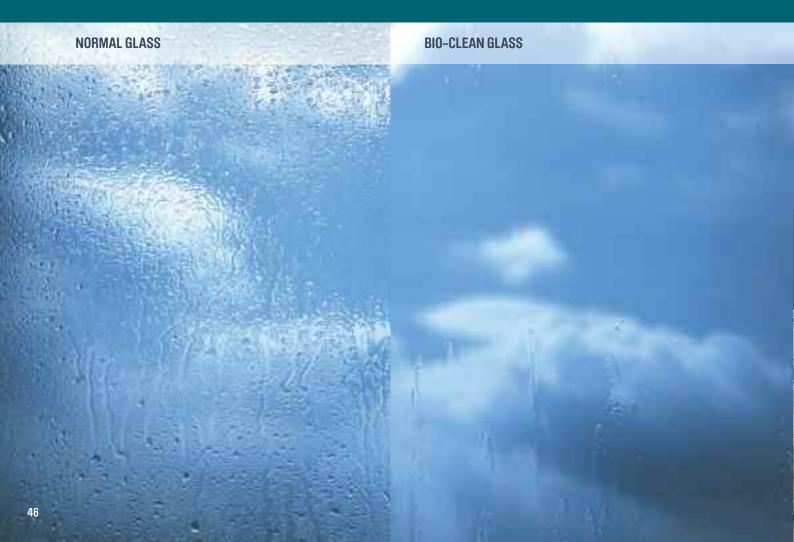
ENJOY THE VIEW WITHOUT THE HASSLE OF CLEANING YOUR CONSERVATORY ROOF

BIOCLEAN SELF-CLEANING CONSERVATORY ROOF GLASS

Our BIOCLEAN self-cleaning glass option is the perfect way to make use of technology to cut down on maintenance and cleaning hassles.

This revolutionary self-cleaning coating is applied to the glass as part of the manufacturing process. This means it is fused to the surface of the glass and therefore lasts the lifetime of the pane.

The special BIOCLEAN coating uses both rain and natural light from the sun to efficiently combat the dirt and grime that accumulates on the outside of the window. By significantly reducing the need for manual cleaning, it provides the ideal solution for keeping those hard or dangerous to reach areas clean, leaving householders with more time to relax and enjoy the view.



HOW BIOCLEAN SELF-CLEANING GLASS WORKS

There are two processes at work:

- The special coating harnesses natural daylight which triggers the breakdown of the dirt and grime on the outer surface of the glass.
- When rainwater hits the glass, rather than forming droplets it flattens and spreads out across the surface of the glass helping to wash away the loosened dirt and grime. This sheeting effect also minimises spots and streaks by helping the glass to dry more quickly and evenly.

SELF-CLEANING GLASS ADVANTAGES

- $\bullet\,\,$ The permanent self-cleaning coating lasts the lifetime of the window
- Perfect for conservatory roofs and other hard to reach areas
- Glass stays cleaner for longer
- Less dirt and grime adheres to the glass so any cleaning is quick and easy
- Ongoing cost savings with reduced window cleaning bills
- Kinder to the environment with a less frequent use of water and detergents
- Clear view outside even when it's raining thanks to the sheeting effect

TINT OPTIONS

Available in a choice of four tint options for your conservatory roof to match your precise specification requirements



REDUCE WINDOW CLEANING WITH CLEARSHIELD PROTECTION

NON-STICK GLAZING THROUGHOUT YOUR HOME

We offer a superb solution for all windows and doors which takes away the hassle of frequent cleaning and keeps them looking good as new for longer.

All our sealed units are available with Ritec's award-winning ClearShield System. This has been specially developed for the protection, renovation and maintenance of both new and already installed glass.

Just like a non-stick frying pan, ClearShield provides a protective barrier for the surface of glass that is much more effective than a coating. It cuts the amount of window cleaning you will need to do by up to 70% without affecting the transparency or solar gain (g-value) of the glass.

ClearShield protected glass:

- Is always easier to clean and keep clean
- Stays cleaner for longer
- Resists staining and discolouration

Remember, the benefits of ClearShield protection are not restricted to new sealed units - we can upgrade existing windows too.



HOW CLEARSHIELD WORKS

Did you know glass suffers from corrosion? Just as metal rusts, glass is subjected to a corrosion process caused by reactions between the glass surface and gases in the atmosphere. Even a single droplet of moisture on unprotected glass can produce sufficient damage to be visible in good lighting.

The surface of glass is not smooth and consists of microscopic peaks and potholes. Both organic and inorganic contaminants fill these potholes and chemically react with the glass, firmly bonding to the surface. Because of this, cleaning glass becomes more difficult and visibility deteriorates.

CLEARSHIELD TRANSFORMS

ClearShield is a polymeric resin and, when applied to ordinary glass, it cross-links to form a strong chemical bond. ClearShield is completely transparent, chemically inert, non-hazardous and UV stable. Unlike a coating, ClearShield becomes part of the glass so will not peel, flake or crack.

The result is low maintenance sealed units featuring glass that prevents contaminants from bonding to the surface and limits further damage caused by corrosion and chemical attack. Dirt can easily be removed using normal cleaning methods.



BACKPAINTED GLASS

THE MUST-HAVE KITCHEN AND BATHROOM FEATURE

High quality backpainted glass adds that special appeal to any contemporary kitchen or bathroom, making an impression that other materials simply can't match.

We supply back painted glass in virtually any colour with superb glass clarity thanks to our base material being a low iron float glass. We'll match any RAL, Syntha Pulvin or Dulux colour code as closely as we possibly can for perfect coordination in any room.

We work directly with homeowners, as well as kitchen and bathroom designers/installers, builders and architects, to advise on backpainted glass specification and the product's suitability for applications.

Backpainted glass is perfect for kitchen splashbacks, worktops, feature panels for walls, architrave, skirting boards, shower panels and almost any smooth, fixed element within the home.







APPLICATION, SPECIFICATION AND INSTALLATION GUIDANCE

With the colour coating on the reverse, the glass is easily cleaned, very durable and when painted on toughened glass is heat resistant to approximately 200 degrees Celsius - that's ideal for use behind an oven or wood burner.

Backpainted glass can be easily fixed to the wall with mirror adhesive (although products like Gripfill, No Nails etc, must NOT be used under any circumstances). Alternatively, as

long as it has been specified at the time of order, the glass can be drilled and screwed to the wall with dome top mirror screws.

Measure up where you need cut outs for sockets, switches, etc before you place an order and we'll cut these ready for installation - complicated shapes can be accommodated too.



MORLEY GLASS: THE ADVANTAGES ARE CLEAR

All our Uni-Blinds® sealed units incorporate ScreenLine® blinds - this is the world's number one product of this kind. Morley Glass is in fact Europe's largest manufacturer of ScreenLine® blinds, reflecting the strength of our position in the integral blinds market and manufacturing expertise.



PEACE OF MIND

Our highly experienced and skilled team provides you with the assurance that orders are handled efficiently, accurately and professionally from the moment we take your enquiry through to post-installation support.

Our manufacturing excellence is recognised by the fact that we are the only company in the UK licensed to manufacture ScreenLine® blinds in-house. We use bespoke precision engineered machinery to give a perfect finish every time and combine this with craftsmanship. All our Uni-Blinds® operatives have been trained in

Italy by Pellini to exacting standards in blind fabrication.

Every Uni-Blinds® unit is tested after fabrication to ensure smooth operation and trouble-free installation. This includes our 'plug n play' pre-wired boxes supplied with motorised Uni-Blinds®. A final quality control check on every product is completed before dispatch.

All our Uni-Blinds® units carry a five year guarantee in the glazing unit and on the integral blind components.



Many thanks for all the help and assistance yesterday, the blinds are working perfectly. Can you please pass on my thanks to Ian for his persistence in achieving a fully operational system.

Keith Jackman, Harmony Profiles Ltd

WHAT YOU SAY

6 G I would like to thank you for the excellent service I have received from your company. Thanks for sending your engineer down to look at the installation, he was able to fix one on-site and arranged for a new unit to be manufactured to replace the other.

Rob Maidment Advanced Alloys Limited is a vital component to maintaining the exceptionally high standards we set ourselves, both in customer service and in the high quality of our bespoke products - we are pleased to endorse the whole team at Morley Glass who always provide a fantastic service, a quick response time and great after sales service. We need suppliers who offer the same high standards and are willing to help and offer reliability. Morley Glass never fail to impress.

Nick Loades Sunfold Systems Ltd as complete encapsulated units from Morley Glass & Glazing Ltd, we have totally eradicated any manufacturing issues and have the peace of mind of knowing that their Uni-Blinds® product is fully guaranteed for five years. A deciding factor in our decision was that we also have the support of their highly experienced Service Engineer should we need advice or a site visit after installation.

Peter Davison, Alpine Window & Door Systems Ltd

NATIONWIDE SERVICE AND DISTRIBUTION

In addition to our stringent manufacturing processes and quality control checks, we are the only integral blind company in the UK to employ full time service engineers. This ensures that our clients and their end users have access to and the full support of our highly experienced engineers who are available to provide support on installation queries or advice on operation issues, once installation is completed. They are also available to attend on-site visits nationwide and will always endeavour to arrange a convenient time for your client.





DELIVERIES EVERY WEEK

















Call our expert, friendly team Mon-Fri, 07:30 - 16:30

0113 277 8722

Other publications available

Back painted glass brochure
Conservatory glass brochure
Decorative options for doors, windows and fanlights
Retail brochure
ScreenLine® Accessories brochure
Lifestyle brochure

Uni-Blinds

from

Morley

GLASS & GLAZING LTD