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MAKING YOUR HOME WARMER



Windows and doors can account for up to 25 per cent of the total energy lost from your home, so your new windows, doors, conservatory or glazed extension need to deliver – not just look great.

All of our ranges are manufactured to the highest standards, meeting and far exceeding all current regulations in the UK for window and door energy efficiency with Window Energy Ratings of up to A++ and U-values as low as 0.9W/m2K.

Whatever your choice of style or finish, it means that your new windows and doors are going to keep your home warm and secure for years to come.

Your guide to Window Energy Ratings (WERs)

Whether you're thinking about buying new double or triple-glazed windows or doors you need to know how they're going to perform.

Windows and doors can look the same, but deliver wildly different levels of performance.

Window Energy Ratings provide a simple 'traffic light system' measure of performance. This includes a combined measure of how good it is at:

- 1 Keeping draughts out,
- 2 The warmth that it adds to a property through solar-gain,

and

3 - How effective it is at stopping heat loss - something measured in construction as a U-value.

A similar scheme using different calculations also exists for doors (DERs).



WINDOW ENERGY EFFICIENCY Keep your home warm and cosy on even the coldest of days Page 6 | Product Brochure

WHAT MAKES OUR WINDOWS AND DOORS ENERGY EFFICIENT?



Glass

Glass is the single most important factor in defining the energy performance of your new windows and doors. Our glass supplier Pilkington, is at the leading edge of innovation. With a proud reputation of being a market leader globally in glass sealed unit manufacturing.

All of the double and triple-glazed glass units that we supply use smart low-e coatings on glass - a one-way door for trapping and holding energy.

We also use warm-edge spacer bars, which separate the sheets of glass in double and triple-glazed units to put 'space' between the cold air outside and warm air inside. This cavity is filled with argon gas. It's completely inert in the environment and you can't see it but because it's denser than air. It creates a highly effective insulating barrier, helping to keep your home warm and cosy on event the coldest of days.

Windows, doors and glazed extensions

Our PVC-U windows and entrance doors are manufactured in the UK's leading Profile 22 Optima system, with over £13 million of investment from Profile 22 and our manufacturing partner Emplas Window Systems, you can be confident your windows and doors are the most advanced in the market today.

Our frames feature an internal 'honeycomb' multi-chamber system, which create a series of thermal barriers between the warm air inside your home and cold air outside of it (see the window technical overview on page 15).

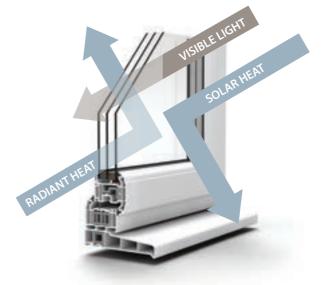
PVC-U and composite doors

The same principles are applied in PVC-U panel and composite front and back doors. These use a tough high density polyurethane foam core in the leaf to provide exceptional levels of insulation.

The exact energy efficiency of your new door will depend on a number of different factors including the style of door and glass you choose but all feature our warm core foam technology.

This maximises the thermal efficiency of your new composite door, making it up to almost 20 per cent more energy efficient than a traditional solid timber door.

Our solid roof and roof glass options provide only the latest technology to ensure the lowest u-values and the greatest solar reflections options. This keeps the room warmer in the winter and colder in the summer and using your energy to heat and cool accordingly.



Pilkington



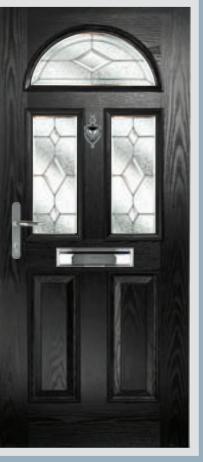
Window energy efficiency

- 1. Low-e coatings on glass create a thermal barrier, preventing heat transfe
- 2. Warm-edge spacers used to make up glazing units create space betwee
- Gap created by the spacer bar is filled with inert high density gas. Dense than air it provides an additional barrier to heat transfer
- 'Honey-comb' chambers inside PVC-U windows create multiple thermal-breaks
- Thermally efficient, recycled composite material reinforcements used in place of energy inefficient steel reinforcements, further improve energy efficiency. (please note full steel may be required in some applications for structural reasons)



COMPOSITE DOORS

Our front and back door composite door ranges are supplied to a UK Police approved Secured by Design specification as standard.







See page 66 for more details



Meets and exceeds all current building standards including PAS24:2016

> Robust handles manufactured from either stainless steel, zinc or



Laminated glass as standard as an additional burglar deterrent



Break secure, anti-bump anti-drill and anti-pick cylinder



Single piece door-keep and multi-point locking



Recycled composite material used for strength, increased security and insulation

WINDOWS

Our windows feature the latest innovation in attack resistant and robust PVC-U frames and hardware.















8-point locking (9 on larger sizes) providing the ultimate burglar deterrent



Developed to withstand even the most determined intruder.
Tested by an independent test laboratory to over 3,500N force



Patented bolt into the keep docking system prevents sideways movement of the bolt when under attack



Heavy duty bolt has up to 300 per cent greater contact area against competitor shoot-bolts



Resistant to salt spray (BSEN1670) and cycle tested over 50,000 times for ultimate long-term performance



Meets and exceeds all current building standards including PAS24:2016 (when dog bolts and laminated glass are selected where appropriate)



A CHOICE OF STYLE AND FINISH AS INDIVIDUAL AS YOUR PROPERTY

Your choice of window and door design, will help to define the character of your property. From country cottage and period features of traditional box sash windows, to bold statements and contemporary urban designs, all of our windows and doors can be tailored to perfectly complement your very own 'grand design'.

Window styles

Our windows are manufactured Profile 22's new Optima PVC-U profiles - a classically sculptured (QS), a simpler, chamfered (QC) frame design or 'heritage' flush sash timber replacement. Each offering the highest levels of energy efficiency and slim stylish sightlines. Whatever your choice for your property you can be sure your new windows will be secure, energy efficient and low maintenance.



Casement



Flush casement



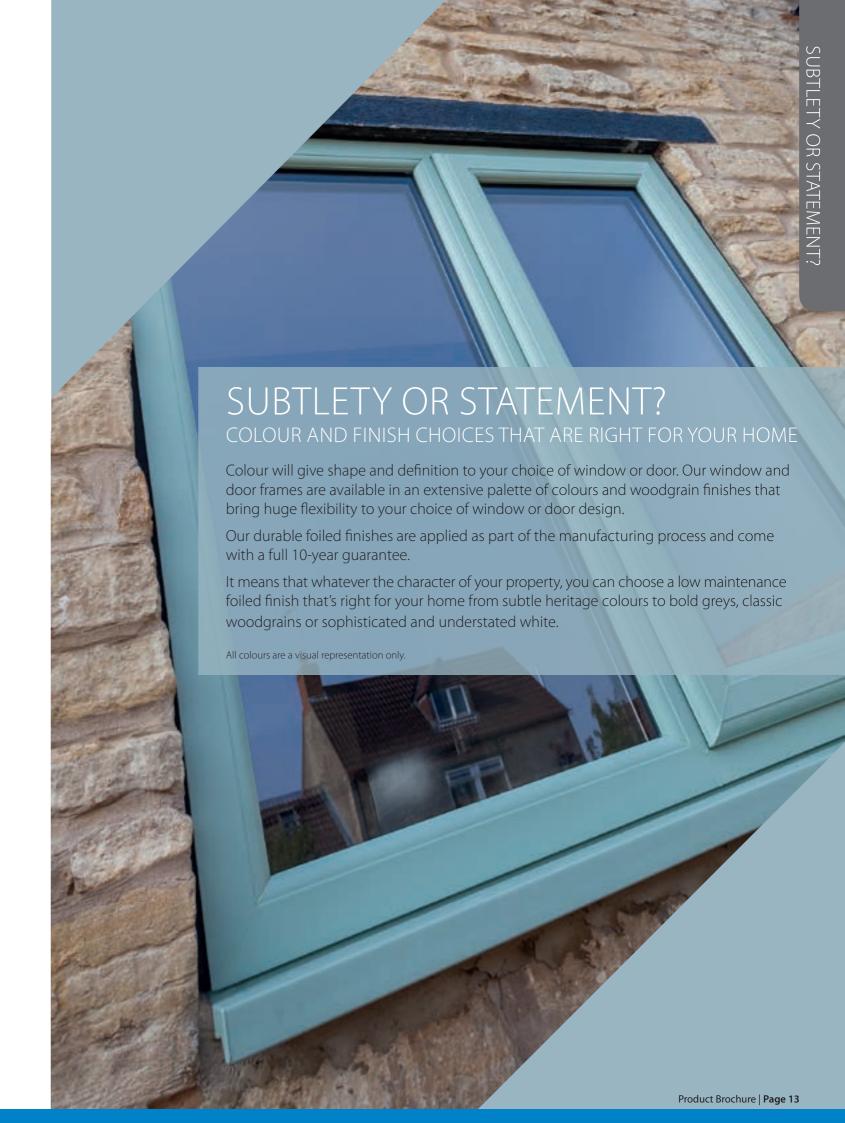
Tilt-and-Turn



Fully Reversible



Vertical Sliding Sash Windows





WINDOWS - TECHNICAL OVERVIEW

Our window ranges are the product of over £13 million of investment in energy efficiency, security and system development.





- 1 Slim sightline window frame featuring sculptured, chamfered and flush framing options plus extensive choice of colour and finish options
- Thermally efficient outer frame featuring six 'honeycomb' chambers and five chamber sash
- 3 Energy efficient recycled composite material or full steel reinforcement options
- Deeper drainage channels carry water away quickly improving weather performance

- 5 10mm cover on weather seals for ultimate weather tightness
- 6 Specially designed hardware fixing points and local thickening of frame walls to improve screw retention improving security
- 7 High security internal glazing
- 8 Energy efficient double and triple-glazed glazing options featuring warm-edge spacers and low-e coatings to achieve WERs of up to A++ and -values as low as 0.9W/m2K
- 9 High security 8-point locking (9 on larger sizes) providing the ultimate burglar deterrent. Patented bolt into the keep docking system prevents sideways movement of the bolt when under attack
- Meets and exceeds all current building standards including PAS24:2016



CHOOSING THE RIGHT STYLE OF WINDOW FOR YOUR HOME

Every home is different, which is why we offer a wide range of window styles and colour options. Making the right choice is about working out not only the best fit to the character of your property but also thinking about how you want to live in it.

Choosing a window style is the starting point. The handles or any colour or finishes you then add, will further define the appearance of not just your windows but your home as a whole. We'll work with you to help you make the perfect choice.

FRAME DETAILING

Our casement, tilt-and-turn and fully reversible windows are available in a choice of sculptured, chamfered or flush frame systems.



SCULPTURED DETAIL

Sculptured detailing offers a more traditional decorative finish replicating the curves found on traditional timber windows.



CHAMFERED DETAIL

Chamfered detailing features a more contemporary and simpler bevelled edge, with straight sightlines.



FLUSH SASH DETAIL

Our flush-frame windows feature a dedicated slim-line window sash which sits flush with the outer frame. This recreates the aesthetic of a period casement timber window in a low maintenance and energy efficient option.









O CLASSIC CASEMENT

Timeless and with classic appeal, our range of beautiful and flexible casement windows can be designed to complement period properties or contemporary homes delivering perfectly balanced sightlines.

2 FRENCH CASEMENT

Featuring the same classic styling, our casements are designed so that they don't require a central mullion (upright). Opened, it means views are uninterrupted. With no fixed mullion, you can be confident our windows comply with the fire regulations for escape.

3 FLUSH CASEMENT

5 FULLY REVERSIBLE

6 VERTICAL SLIDING SASH WINDOWS

• GEORGIAN ASTRAGAL BARS









Our range of elegant and ergonomically designed handles bring form to functionality. Designed to fit naturally into the user's hand, they exude quality to the touch.

Beautifully crafted, our Signature[™] hardware range is available in premium quality white and black powder coated finishes; chrome plated; and gold and satin electroplate finishes.





WINDOW COLOUR AND WOOD-GRAIN **FINISHES**

Colour is a powerful design tool.

It can make your windows and doors seamlessly blend into the materials that surround them, delivering a subtle finish, which suggests that they have always been there.

It can drive bold statement designs which exude contemporary

Or colour can sit anywhere in between – the choice is yours.

Our extensive colour and finish range from traditional woodgrain options, to contemporary greys and subtle creams and whites brings incredible design flexibility to low maintenance and energy efficient PVC-U windows and doors.

All colours are a visual representation only.













*Colours above show our standard colour range available for windows. Additional colours available upon request see page 33









THE CHOICE IS YOURS









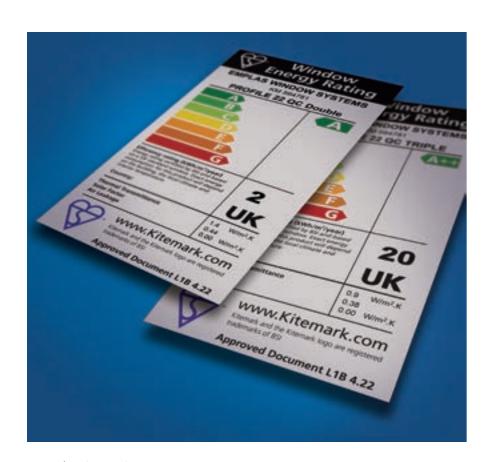




WINDOW ENERGY EFFICIENCY

Building Regulations may dictate minimum standards but our energy efficient double and triple-glazed windows go far beyond, keeping you warmer and saving you money, year round.

Achieving Window Energy Ratings of up to A++ and U-values as low as 0.9W/m2K, our windows are designed to be energy efficient from the inside out.





ENERGY EFFICIENT FRAMES

Our window frames feature five thermally efficient internal chambers in the sash and six in the outer frame. This thermally efficient 'honey-comb' creates a series of barriers between the heat inside your home and cold air outside.

We enhance frame energy efficiency even further whenever possible, by swapping highly conductive steel for far more thermally efficient and ultra-strong recycled composite material reinforcements.

HIGH PERFORMANCE GLAZING UNITS

All of the double and triple-glazed glass units that we supply, are via our glazing partner Pilkington. We use smart low-e coatings on our glass - a one-way door for trapping and holding energy.

We also use warm-edge spacer bars which separate the sheets of glass in double and triple-glazed units to put 'space' between the cold air outside and warm air inside, insulating it in the process.

You can therefore be assured of advanced thermal efficiency in a beautifully crafted and low maintenance window.





TYPICAL WERS

chieves A+ with double glazing*
++ achievable with triple glazing*

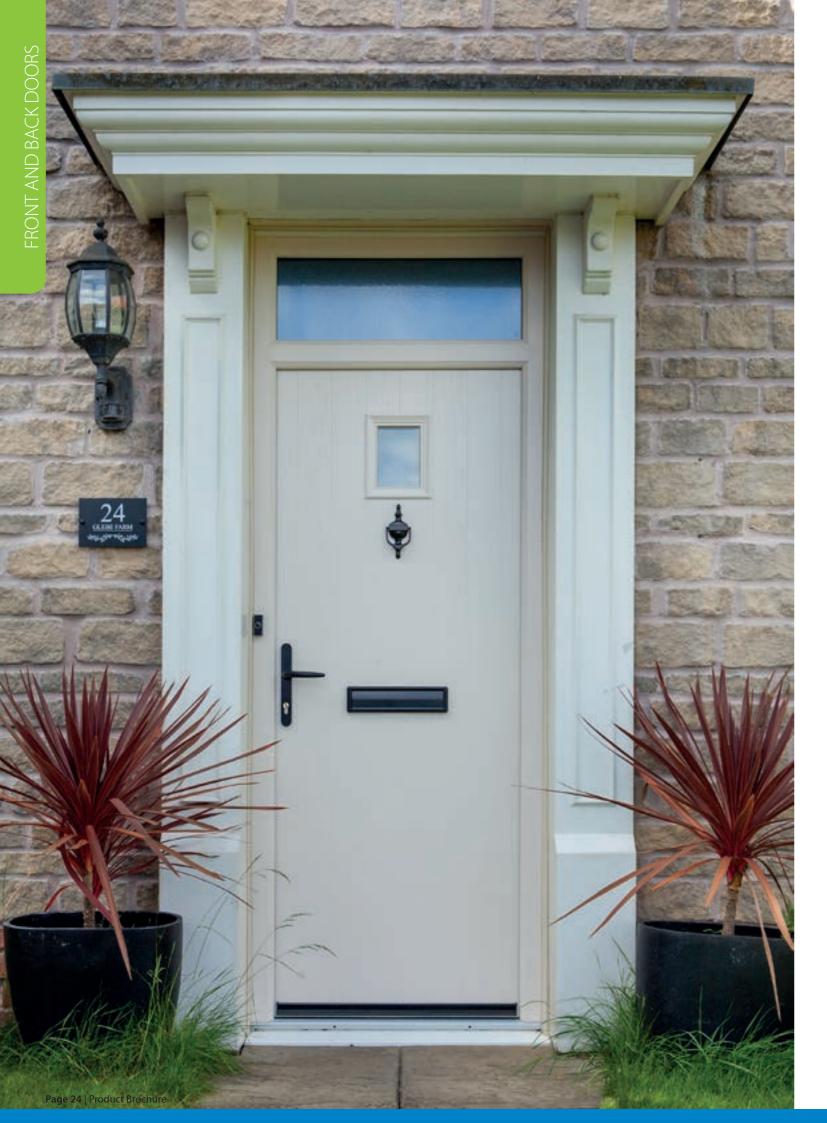
Except Flush Casement Windo
 Except Flush Casement Windo
 and Vertical Sliding Sash

TYPICAL U-VALUES

Achieves 1.4 W/m2K with double glazing*
Achieves as low 0.9 W/m2K with triple

- * 14 W/m2K on flush casement window
- ** Triple Glazing not available on Flush Casement Window or Vertical Sliding Sash Window

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FRONT & BACK DOORS

In closing your front door behind you at the end of the day, you also shut out the stress and strain of the working day.

It makes your home a place to unwind and relax; a place that's safe and secure for you and for your family. An entrance door protects your home and everything that's important to you inside it.

That's why all of our entrance doors are manufactured from robust, tough and only the most durable materials, featuring, high security locking mechanisms and toughened glass.

Our PVC-U and Composite entrance doors can also be supplied with sidelights, space permitting, helping you to make more of the entrance to your home.

Offering superb weather sealing and minimal maintenance, you would struggle to buy a better door.











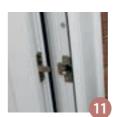




PVC-U PANEL FRONT AND BACK DOORS – TECHNICAL OVERVIEW

Our PVC-U infill panel doors, like our composite front and back doors (see pages 36 - 37) employ cutting-edge innovation to keep your home warm, secure and weathertight.













- 1 Robust vacuum and pressure bonded panel, featuring reinforced core and 'type A' fire resistant and thermally efficient expanded polystyrene insulation
- 2 Choice of contemporary and traditional designs
- 3 Secure energy efficient door frame, featuring localised thickening of walls, providing increased screw through pull and hardware retention

- 4 Multi-point locking mechanism and high security keep
- 5 Anti-pick, anti-bump and anti-drill door locking cylinder plus Secured by Design options
- 6 High performance gaskets provide superb weather sealing
- 7 Energy efficient decorative glazing options
- 8 Choice of standard PVC or low aluminium threshold options

- 9 Choice of colours and woodgrain finish options.
 See page 33
- Meets and exceeds all current requirements under building regulations
- Optional dog bolts an additional burglar deterrent





We have created a specially selected range of PVC-U panel doors, designed to bring style and elegance to any home.

Combined with a wide choice of colour and decorative glazing options, finding the perfect new door for your property is easy.



BUCKINGHAM

The Buckingham is a highly flexible half-glazed door option.

Bringing light into your home it can be installed as either a front or back door. It's defined by its subtle octagonal moulded detailing in the bottom panel. **Shown here with Everglade™ glass**



KENSINGTON

The Kensington is another classic door design. Suited to use as either a front or back door, it features two half leaded door lights, which allow light to flood into a hallway or kitchen.

Shown here with Charcoal Sticks™ glass



SANDRINGHAM

The classical front door, the Sandringham features an energy efficient solid design providing a high level of security and a half-moon door light, with Georgian Bar detailing.

Shown here with Florielle™ glass



MADRID

The Madrid brings classical styling to your home.
Two large door lights with arched focal points bring light into your home making this beautifully styled front door a popular and flexible choice. Shown here with Contora™ glass



OBSCURE GLASS OPTIONS

PRIVACY FOR YOUR HOME

Alongside colour, your choice of glass will shape the appearance of your door. Whether you choose a simple privacy glass or decorative glass finish, all of the glazing units we supply are internally beaded and feature A-Rated energy efficient glass.









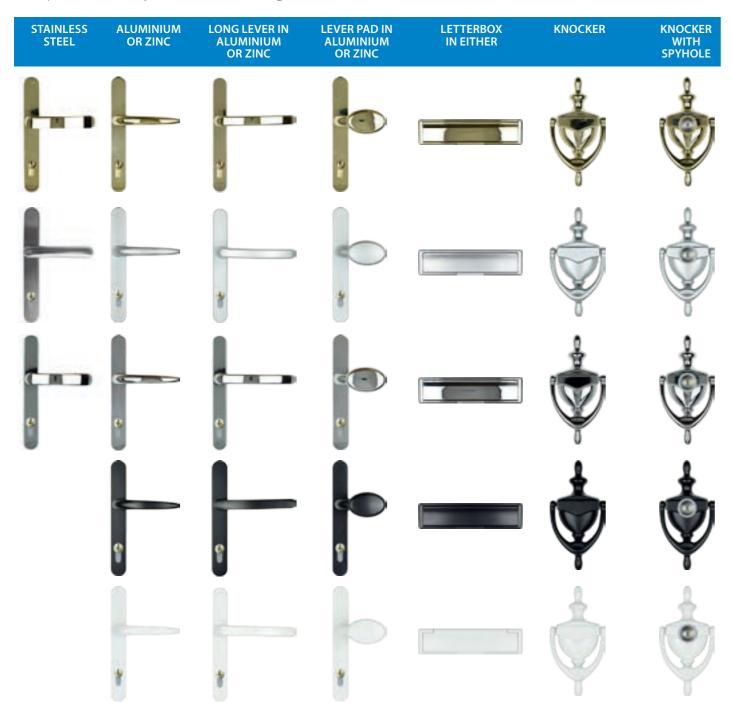




HANDLES, HARDWARE & DOOR FURNITURE

Your door handle is the part of your new door that you'll touch each and every day. Your letter plate, choice of knocker, all come together to put the all-important finishing touches to your new door.

Whether you're designing a contemporary, bold statement door, or recreating the timeless charm of a period installation, we can offer you the perfect choice of lever, pad lever, heritage or contemporary pull handles (composite door only) available in white, gold, chrome, black and satin finishes.



We also offer a Long Lever easier to grip Handle (3rd column above) which offers a greater, smooth action and low operating forces required to operate handle. The ample lever-to-door surface clearance option, are Compliant with Document M of the The Disability Discrimination Act (DDA), which states that the door handle needs to be able to be operated one handled without tightly grasping or any twist on the wrist.

Stainless steel options are available, for ultimate corrosion resistance which come with a 10 year quarantee, 1st column above. A 10 year quarantee is only available in aluminium or zinc on black and white powder coated handles.

Appearance and finish on hardware is subject to change.

COLOUR OPTIONS

Colour is a powerful design tool.

It can make your PVC-U windows and doors seamlessly blend into the materials that surround them, delivering a subtle finish, which suggests that they have always been there.

Or colour can sit anywhere in between – the choice

It can drive bold statement designs which exude

contemporary sophistication.

Our extensive colour and finish range from traditional woodgrain options, to contemporary greys and subtle creams and whites brings incredible design flexibility to low maintenance and energy efficient PVC-U windows and doors.











(White Base)

Brilliant Blue

Anthracite Grey Smooth / Anthracite Grev Smooth (Grey Base)

Steel Blue



Anthracite Grev Smooth / White PVC-U (White Base)

Dark Green



Black Brown / Black Brown (Brown Base)

Chartwell Green



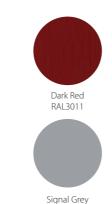
White PVC-U (White Base)



Cream (Cream Base)



White / White (White Base)























Mahogany



Rosewood

Black Brown



Anthracite Grey

RAI 7016





Anthracite Grey

(smooth) RAI 7016

Natural Oak



RAL9010



RAL9001







(Finesse) RAL7015



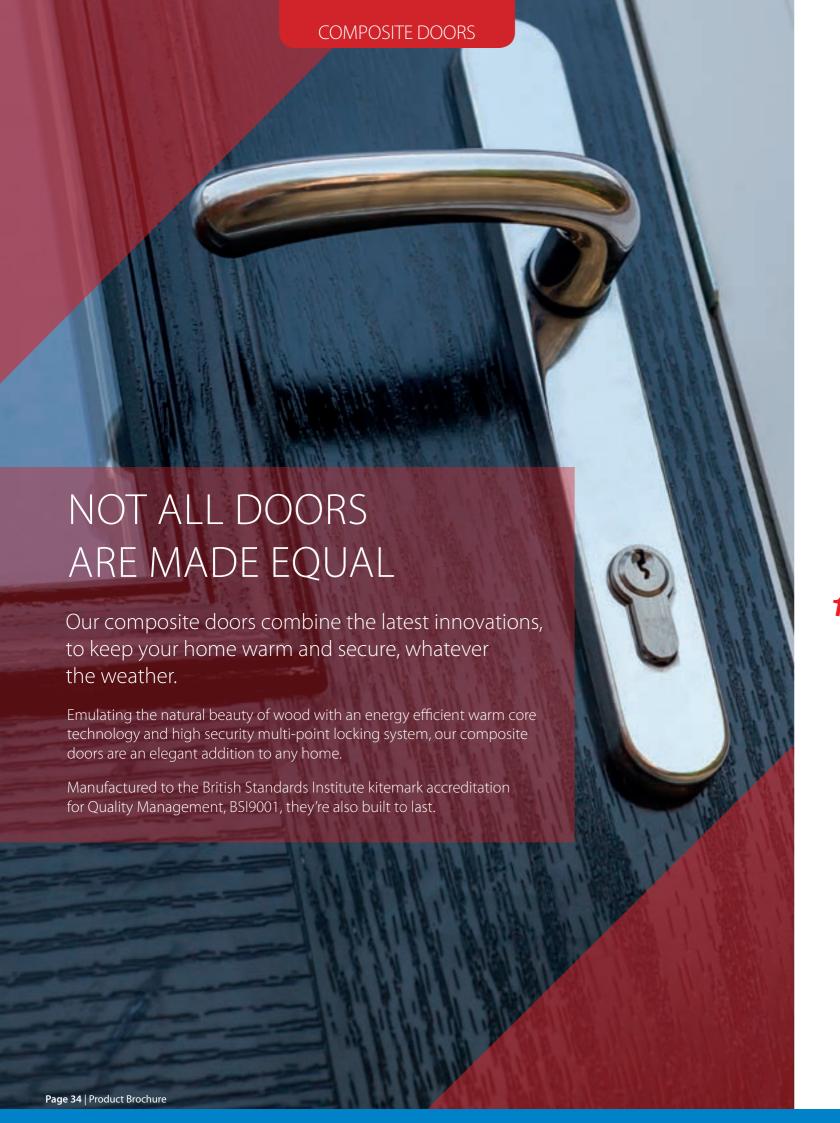




The colour match data is given in good faith.

Please note that RAL colour codes are the nearest match only and, therefore, not exact matches with

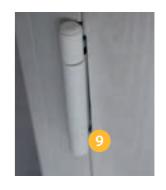
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COMPOSITE DOOR

Composite front and back doors emulate the natural warmth of timber but without the maintenance. Secure, thermally efficient and available in a wide variety of traditional and contemporary designs, they're a stunning addition to any home.











SECURED BY DESIGN LOCKING

Our doors are manufactured to the highest security standards, featuring police approved Secured by Design multi-point locking mechanisms, keeps and handles as standard. They're anti-lift, anti-drill and anti-pick, meeting and exceeding all current building standards including PAS24:2016

INSULATED THERMALLY EFFICIENT CORE

> Our doors are manufactured from a thermally efficient and tough high density polyurethane foam core. They're tested to be almost 20 per cent better at keeping the warmth inside your home and your energy costs lower, than a traditional solid timber door

SOUND INSULATION

The polyurethane core offers great sound insulation, reducing outdoor noise by an average of 31dB

COLOUR CHOICE

Choose from seven through-colour standard finishes or a choice of 36 bespoke colour options, making the colour choice for your home as individual as you are

DOOR FURNITURE

Define your style with a choice of handles, letter-plates, door knockers and spy holes available in satin, white, gold, chrome and black finishes (see page 32)

MOBILITY

All of our doors come with an optional mobility low threshold, ideal for wheelchair use or with pushchairs. This option complies with Document M of the **Building Regulations**

NATURAL TIMBER

The appearance of natural timber but without the maintenance. Composite doors emulate the natural appearance of a traditional timber door but without the

associated maintenance. They won't warp or expand and don't require painting

ENERGY EFFICIENT AND SECURED BY DESIGN GLAZING

Our doors feature the latest in energy efficient double and triple-glazed glass technology manufactured to the British Standard BS1 EN1279 to keep your home warmer. All our doors include Secured by Design laminated glass as standard ensuring zero access to potential burglars

Manufactured from stainless steel, unlike lesser doors, our hinges come with a full 10-year guarantee and minimalist aesthetic design lines

10 WEATHERTIGHT

The insulated core is protected from water and moisture ingress by a high performance polymer skin. Our doors are also fully tested to all relevant British Standards



Composite doors come in a wide choice of elegant designs and colour finishes, which means you can always find the perfect match for your home.

These are some of our favourite designs but if you can't see what you're looking for, please request a copy of our dedicated composite door brochure, The Classic Door Collection.



Style: Esteem Solid
Colour: Black
Hardware: Chrome including
lever/lever handle

ESTEEM SOLID

The classic front door, Esteem exudes taste and sophistication. Equally suited to modern or period properties, it offers a sympathetic match to traditional Victorian and Edwardian doors. It has a reassuring and substantial feel.



Style: **Eclat**Colour: **Rosewood**Glass: **Scotia Zinc**

Hardware: Gold including lever/lever handle

ECLAT

Defined by a large top light, the Eclat offers flexibility and choice with multiple design options. Half-glazed, the large top light sits above two panel lights bringing a focal point to your hallway, also letting plenty of light inside.



Style: **Esteem Half-glazed** Colour: **Blue**

Glass: Scotia Zinc

Hardware: White including lever/lever handle

ESTEEM

Half-glazed, Esteem exudes the same taste and sophistication of the Esteem Solid and is again equally suited to modern or period properties. Still substantial and reassuringly solid, single or twin top lights bring a light airy feel to your home.



Style: Eclat Arch
Colour: White
Glass: Andorra Zinc

Hardware: Satin including lever/pad handle

ECLAT ARCH

This door has real gravitas. Featuring a square or arched top light only, the Eclat delivers substance and security. Emulating Regency styling, it's the perfect option for new or period properties.

Product Brochure Product Brochure

GLASS OPTIONS

CHOOSE THE PERFECT DESIGN FOR YOUR HOME

The decorative touch that defines your door, our wide range of glass options offer you the perfect choice from the simplicity of privacy glass to the detailed, beautiful and intricate leadwork and crystal of Andorra. All come as triple glazed, as standard.

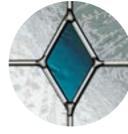
Whatever your preference, all of our doors are internally glazed, while glass units achieve top ratings for energy efficiency, keeping your home safe, warm and welcoming. Laminated glazing means our composite doors are Secured By Design approved, as standard.

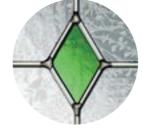
Secured by Design



Triple glazed, Secured By Design laminated glass as standard

Classic colour









Premium Colour

COLOUR OPTIONS

Open the door to colour

When it comes to your choice of colour there are no hard and fast rules. With our wide choice of standard and bespoke colour and finish options, from the classic black door to heritage Duck Egg or Coastal Blue, you'll find the perfect colour match for your home.

Standard colours











Sky Blue

Blue Lilac



Gold Oak

Distant Blue

Signal Violet



Pastel Blue

Purple Violet

Bespoke colours





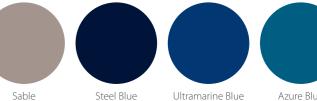


Pastel Green

Olive Yellow







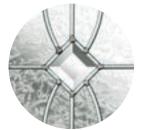




Red Violet Ruby Red Traffic Red Magnolia











Scotia Brass*



Andorra Brass*

Scotia Zinc*



Autograph



Prestige



Valentia*



Edwardian



* All glass types with an asterisk feature clear bevels, whilst others show obscure bevels in grey only. All door styles are also available with fully clear or obscure double glazed Pilkington options (see page 31).

Wine Red

Pastel Violet

SLIDING PATIO DOORS, FRENCH DOORS AND BI-FOLDING DOORS Inline Sliding patio doors, French doors and Bi-folding doors are about summer and much more. From relaxing on a warm evening with a glass of wine with friends and family to watching the autumn leaves fall and the seasons change, each opens a window to the world outside. Whether you decide on a slim sightline and space saving patio door, classic and timeless French Doors, or contemporary Bi-folding doors, your choice will make a perfect connection between your home and garden.

SLIDING PATIO DOORS

Capable of spanning wider distance, sliding-doors leave the view from your property almost uninterrupted and create a great year-round connection between indoor and outdoor spaces.

Manufactured in thermally efficient and low maintenance PVC-U profiles and featuring high security multi-point locking mechanisms, we supply the market leading PatioMaster Sliding Patio Door. Luxurious soft open and close technology, contemporary finishes and slim sightlines mean that our inline sliding door range provides a seamless connection from your home to garden.









- 2 Smooth glide lightweight opening and closing mechanism tested to 150,000 cycles
- White, wood-grain and colour options (see page 33)
- 4 High performance energy efficient A-Rated 28mm glazing as standard

- 5 Two three or four pane options
- 6 Energy Efficient recycled composite material or full steel reinforcement options
- 7 Six point locking system with anti-jacking technology for outstanding security as standard
- 8 Security head rail prevents the sliding panel being lifted off the track



- Police approved Secured by Design option featuring antibump cylinders and interlock bolts
- 10 Low track low threshold options for ease of access
- 11 Weather seals prevent draughts



SLIDING PATIO DOOR **OPTIONS**

Our Sliding Patio Doors offer incredible design flexibility, so finding a combination that's right for your individual home is simple.

- 1 Decide on a door combination, choosing either from two, three or four pane options
- Take your pick from our range of colours (see page 33) and handles

GLASS

All of our sliding doors come with A Rated energy efficient glass which is toughened for your families safety.

HANDLES

Our high security handles are manufactured from robust materials to an attack resistant design. Available in White, Chrome, Gold, Satin and Black, they feature a special scratch resistant finish and are guaranteed for 10-years.

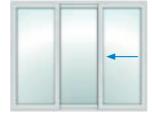
2 PANE OPTION



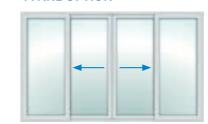
3 PANE OPTIONS



3 PANE OPTIONS



4 PANE OPTION















FRENCH DOORS



- 70mm slim sightline frame featuring sculptured and chamfered options plus extensive choice of colour and finish options (see page 33)
- Thermally efficient outer frame featuring six 'honeycomb' chambers and five chamber sash
- 3 Energy efficient recycled composite material or full steel reinforcement options
- Deeper drainage channels carry water away quickly improving weather performance
- 5 8mm cover on weather seals and optional dog bolt security upgrade available on hinge side of door
- 6 Specially designed hardware fixing points and local thickening of frame walls to improve screw retention and improved security

- 7 High security internal glazing system
- 8 Energy efficient double and triple-glazed glazing options featuring warmedge spacers and low-e coatings to achieve WERs of up to A++ and -values as low as 0.9W/m2K
- 9 High security multi-point locking system providing the ultimate burglar deterrent
- Meets and exceeds all current building standards including PAS24:2016

Choose the perfect frame detail to match your new or existing windows and doors.



SCULPTURED DETAILSculptured detailing

offers a more traditional decorative finish replicating the curves found on traditional timber windows.



CHAMFERED DETAIL Chamfered detailing

Chamfered detailing features a more contemporary and simpler beveled edge, with straight sightlines.

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THE ULTIMATE WAY TO HARMONISE YOUR HOME AND GARDEN

Bi-folding doors are a great way of connecting your home to your garden and the world outside. With an effortlessly stylish and sleek architectural quality our slim sightline, high security aluminium bi-fold doors bring cutting edge innovation to your home.

Connecting interior and exterior spaces, they feature the highest levels of security, energy efficiency and weather performance by default.

TECHNICAL OVERVIEW

- Slim aluminium frames mean frames and glass can be larger, maximising light and spanning larger areas with fewer door uprights to interrupt views
- Available in two to six panel options
- Smooth, easy glide rolling system
- High security multi-point locking system
- Anti-bump, anti-pick and anti-drill door cylinder option
- 'Push' flat/open intermediate door handle sitting flush with frame
- · Low threshold option
- Low maintenance frames won't warp, rust or twist
- PAS24:2016 accredited







CONSERVATORIES, ORANGERIES, AND GLAZED EXTENSIONS – TECHNICAL OVERVIEW

A revolution in glass and frame technology means that today's conservatories, orangeries and glazed-extensions are a practical and affordable way to add year round family living space to your home.

Our premium ranges feature advanced energy efficient and solar reflective glass and highly insulated roofing bars and eaves, which alongside sophisticated ventilation systems, create a comfortable year round temperature, and with it, delightful, elegant and light filled spaces.



- 1 A-Rated energy efficient Low-e glass, retains the heat within your home, while reflective layers control the amount of sun light that enters your conservatory, preventing the build-up of heat
- 2 Self-cleaning optional coatings prevent dirt and pollution sticking to glass, washing it away with rain fall
- 3 Energy efficient and low maintenance roof glass and composite tiled roof options (polycarbonate also available)
- Trickle ventilation system in the ridge or lean-to wall plate releases build-up of hot air.
 Optional eaves ventilation fits

- between the side-frame and the roof with easy 'on' /'off' control
- Roof vents provide fast and effective release of build-up of heat. Electric vent openers help maintain a constant temperature, featuring rain sensors and thermostats
- 6 Optional underfloor heating brings warmth and sense of luxury underfoot
- 7 Optional insulated electrical housing system allows you to select your conservatory lighting from a far wider choice including many 'standard' fittings
- 8 Optional internal pelmet can be added to standard

- conservatory systems to emulate the appearance of a premium orangery installation or a more substantial glazed extension feel at a value price point. It also provides a housing for down-lighting
- 9 Bi-fold doors or large inline sliding patio doors open whole elevations to the outside, connecting your new living space to the world outside (see pages 42-43 and 46-47)
- High security, energy efficient windows designed to match a range of contemporary colours or low maintenance woodgrain finishes (see page 33)



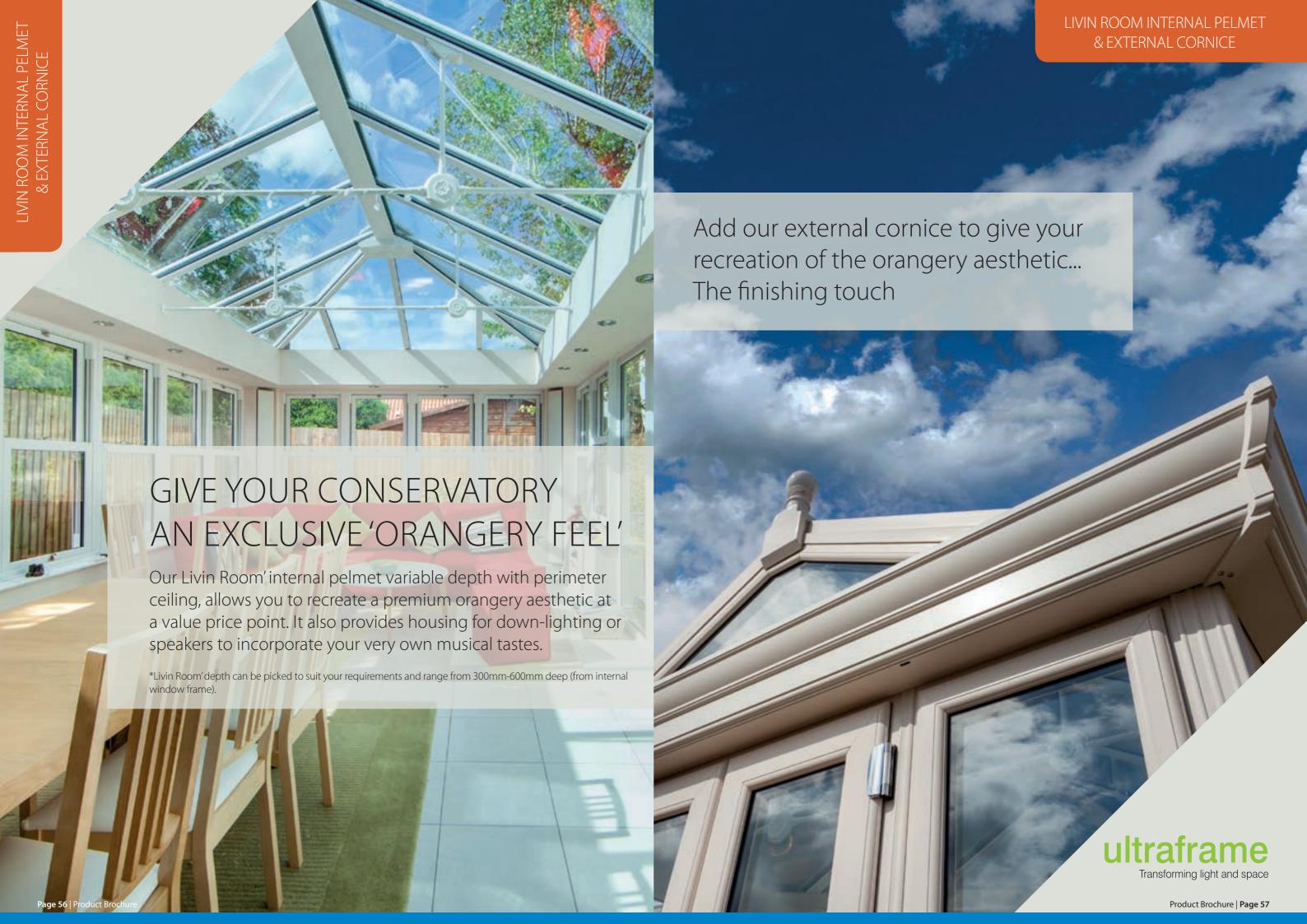


Gable

Delivering the same flexible square or rectangular floor space as a Georgian conservatory, Gable-fronted conservatories feature a slightly higher roof pitch, while the front panel of the roof remains upright forming the classic triangular gable shape. It's available in either traditional part-solid wall and pillar or full glass elevations.

T-Shape

The T-Shape conservatory features a central projection created through a Victorian, Gable or Georgian conservatory and two 'recessed' elements each side. The design is ideal in larger installations, positioning and enveloping your new conservatory within its external surroundings.



CONSERVATORY ROOF & FRAME GLASS OPTIONS

GLASS OPTIONS

Glass is the critical ingredient in good conservatory, orangery and glazed extension design. It features lots of different technical elements, which come together to create a comfortable year-round ambient temperature.

Our conservatories and orangeries feature the latest innovations in glass design. We'll take you through the options and help you make the right choice based on the specific location of your new conservatory or glazed extension.

This is defined by lots of different factors including aspect to the sun, the over shadowing by trees or buildings and exposure to the elements, including wind, rain and snow.



ENERGY EFFICIENT LOW-E GLASS

Low-e glass provides a high level of insulation reducing the amount of heat that is transferred through the glass and your home to the world outside. This helps to keep your conservatory, orangery or glazed extension, warm even on the coldest of days. It's rated in U-values or the amount of heat transferred between materials. The lower the rating the higher the performance of insulated glazing. You can be assured we use only the best performing A - Rated glass units, as standard.



SOLAR CONTROL GLASS

Solar control glass helps regulate the amount of solar energy coming into your conservatory, which unchecked can lead to an uncomfortable build-up of heat. It helps to create a consistent ambient temperature inside your new conservatory, orangery or glazed extension.

If your conservatory is potentially South facing, you might want to check out our Habi Maxi range. Keep cool with 91% solar reflection!



SELF-CLEANING GLASS

Self-cleaning glass features a coating that reacts with UV rays in sunlight. This photocatalytic process, loosens and breaks down organic dirt particles on the surface of the glass.

The surface of the coating is also hydrophilic. This means that it behaves a little bit like soap, so that rather than attracting water to form droplets, it forms a thin layer that then sheets away quickly and dries without leaving unsightly drying spots.



LIGHT TRANSMISSION

Too much bright sunlight can create an uncomfortable glare. Our conservatory glass range includes special tints to control the amount of light entering your new living space. It means regardless of your planned use, dining room, kitchen, lounge or office, you can choose a level of natural light that works for you.

Habi-Moxi

This high-performance glass reflects up to 91% of the sun's heat, while the distinctive cooling tint provides exceptional glare reduction, while still delivering a high level of light transmission.

Product	Light Transmission	Solar heat reflection	Self cleaning
Max/Low E	8%	91%	N/A

Habi-emerald

Another high-performance option glass reflects up to 82% of the sun's heat, reducing internal temperatures by up to 9°C during hot summer days. The greenish tint also provides effective glare reduction.

Product	Light Transmission	Solar heat reflection	Self cleaning
Emerald/Low E	43%	78%	V



Habi-Blue

Featuring a subtle blue tint, Habi Blue Self-Cleaning glass reflects up to 60% of solar radiation, reducing internal conservatory temperatures for easy year-round living.

Product	Light Transmission	Solar heat reflection	Self cleaning
Blue/Low E	47%	60%	✓



Habi-SunBlue

Featuring a classic sky blue tint Habi SunBlue at 80%, delivers the highest levels of solar heat reflection in our blue tint range plus great glare reduction making it a hugely popular choice.

Product	Light Transmission	Solar heat reflection	Self cleaning
Blue/Low E	27%	80%	V



Habi-Natural

With its soft neutral tone Habi Natural Self-Cleaning glass features the slightest of tints providing a natural appearance to the finished room.

Product	Light Transmission	Solar heat reflection	Self cleaning
Natural/Low E	42%	60%	V



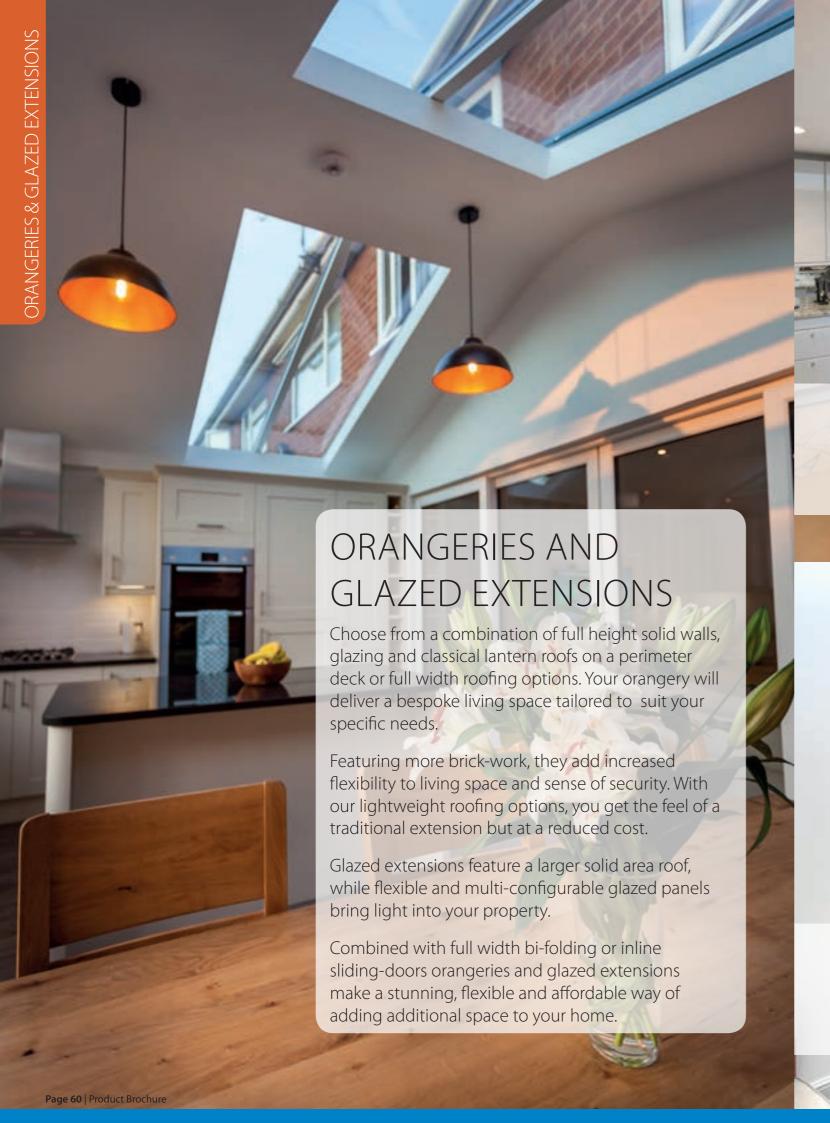
Habi-Bronze

With a warm and subtle tint, this energy efficient and highly insulative glass will help to keep your conservatory warm on the coldest of days.

Product	Light Transmission	Solar heat reflection	Self cleaning
Bronze/Low E	49%	52%	✓







The UltraSky Lantern Roof and Deck

An ingenious pre-fabricated timber deck system recreates the traditional orangery construction but with far greater precision and increased affordability. Sitting on top of brick pillar work, it forms the basis of a perimeter deck, which then sits around an UltraSky Lantern Roof.

The UltraSky Lantern Roof and Deck system creates a light and spacious internal space but the more solid construct increases flexibility for uses including a kitchen, dining room or living room.

The UltraSky Orangery

Featuring a full glass roof with external cornice and plastered internal pelmet, this innovative design eliminates the roof deck featured in a traditional orangery design, fully opening the room inside to the sky above. Cornice-detailing and pillar work deliver a classical orangery aesthetic, externally.



The LivinDoof

The LivinRoof brings you one step closer to a traditional extension - but as a glazed extension, at the fraction of the cost. Featuring an internal perimeter pelmet, the solid and glazed roof system can be configured to almost any design, featuring as much or as little glass as you decide.

Internally-plastered the vaulted ceiling creates a sense of openness, while glazed sections bring light into your room.

Externally finished in a contemporary urban grey and cornice, the LivinRoof adds stylish and almost limitlessly adaptable new space to your property.

REPLACEMENT ROOFS

If you've inherited an older conservatory with the purchase of your new home or you wish to upgrade your existing conservatory for all - year round living space, you can choose from a range of different options to bring your room into the 21st century.

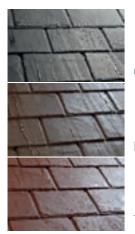
We would recommend our state of the art solar reflective glazing options or our highly insulated solid roof options, whether this be the Livin' Room or UltraRoof 380.

Depending on the suitability of the original construction of your conservatory, including windows and pillars, you can also choose an external finish of Anthracite Grey Aluminium or composite titles in the colours shown below: Talk to our team to find out more.









Carbon Grey

Harvest Brown

Terra Brick







THERMAL EFFICIENCY

One of the foremost reasons why so many homeowners invest in solid roof conservatories is to achieve a more thermally efficient room that offers a comfortable room temperature regardless of the outdoor weather.

Older conservatories fitted with a polycarbonate roof are the best example of how the room can be too cold to use in winter, and too hot to use in summer.

Glass conservatory roofs go a long way towards solving this problem and are far better at controlling the movement of heat that is allowed in and out of a room but, unquestionably, the most energy efficient solution is the UltraRoof 380 roofing system.

Capable of achieving an enviable u-value (heat loss value) of just 0.12 W/m²K, UltraRoof is one of the most thermally efficient, lightweight roofing systems available. And, what's more, large full length glass units or Velux skylights can be incorporated into the design to facilitate overhead natural light and views of the skies above. Please see Glazing Options on page 59 for the u-values of the various performance glass types that we offer.







SECURED BY DESIGN

PEACE OF MIND, BUILT IN

With one home in England and Wales broken into every seven seconds – the majority by forcing or kicking a door – your doors and windows are in the 'frontline' in the battle to protect your home from intruders.

All of our doors and windows are designed to give you and your home the highest levels of protection, featuring multi-point locking and reinforced frames.

We can also supply doors and windows to an enhanced security, Police accredited Secured by Design Specification, in areas where security is a particular issue or for parts of the home potentially vulnerable to attack.

All of our composite front and back doors are supplied to a Secured by Design standard - as standard.

This means that they meet not only the requirements for door security set out in PAS24:2016 and Part Q of Building Regulations but have been independently tested as doing so, as defined by the police approved Secured by Design scheme.











ACCREDITATIONS AND REGULATIONS

OUR COMMITMENT TO THE LATEST REGULATIONS AND STANDARDS

PEACE OF MIND BUILT IN









ISO 14001:2004



BS OHSAS 18001:2007











**1 year guarantee on standard gold and chrome hardware (see page 32)

