

Patio Doorsets



Over the past 10 years there has been significant development in patio door equipment, providing a wide range of new opening formats, options and styles.

Traditional French doorsets and sliding doors have now been joined by folding sliding doors (often referred to as bifolding doors) and even more recently tilting sliding doors.

Alongside the new opening designs there has also been an enormous step forward in the hardware quality, including improvements to operation, draught sealing, aesthetics and an increase in the number of available options.

At George Barnsdale we have been working closely with the suppliers of the best performing systems to ensure that our range of patio doorsets extract the maximum performance from the hardware. This partnership has allowed us to optimise and test our designs producing excellent performance and some unique features.

By opting to provide a complete range of patio door designs and styles, we can give you the exact design that you require, coupled with the quality and performance that characterise a George Barnsdale doorset.

This brochure provides you with information on the key features and the main options that we offer. Due to the number of products and options we have not been able to show all of the options available and have in such places indicated that more information is available on our website at www.georgebarnsdale.co.uk.

Our company brochure also provides further detail on the products, materials, processes and performance of the George Barnsdale range.

Adjustable Hinges



Using advanced adjustable hinges the doors can be set up to ensure that they open easily (doors usually require a small amount of adjustment after installation). The hinge is available in the following colour ways.



Astragal Bars



This is matched to the door profile and glazing bead. It is available with or without interbar, with the option to match the spacer bar. External bars are manufactured from Accoya and dowelled into the door for exceptional performance.

All Round Locking



Modern locking hardware is used to provide multipoint locking along the opening face providing excellent security and also supporting the door along its length to prevent movement that can lead to performance issues and reduce the life of the doorset.



Doorset as shown: Outward opening doorset (Layout D101/Door Style P501), viewed from inside with toughened glass and standard astragal bar and Kirkpatrick handles. Fully finished in white internally and externally with teak cill.

Restrictor



Outward opening doors are supplied with a restrictor to limit opening to 90 degrees, preventing damage from the door being blown open against the outside wall.

Hardwearing Cill



All doors are provided with a teak stained hardwood cill as standard, providing a hardwearing finish that doesn't get easily damaged by foot traffic.

Ventilators



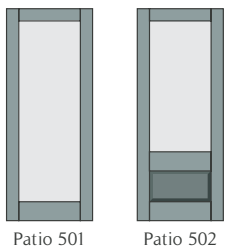
We offer a wide range of ventilation options, both in the door and the frame. Options include canopy vents and flush vents in a range of colours and styles. It is also possible to colour match vents if required.

Layout Options

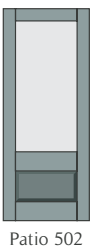
Our manufacturing process allows us to manufacture almost any style of door of options it is often difficult to understand the possibilities and decide on a

and frame configuration, allowing you freedom to design your own or match an existing style. However, due to the wide range design. For this reason we have defined a range of designs that may provide ideas and inspiration.

Door Styles

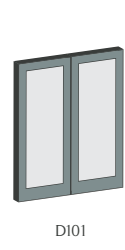


Patio 501

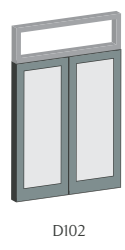


Patio 502

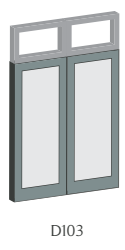
Doorset Layouts



D101



D102



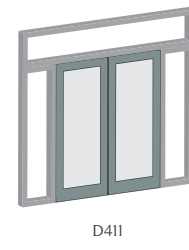
D103



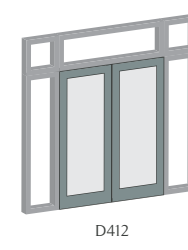
D401



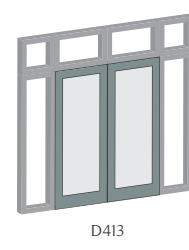
D402



D411



D412



D413

Low Resistance Sliders



The track and rollers are supplied by one of Europe's leading door systems companies providing a premium product with innovative features.

Low Threshold Cill



The cill design provides a low threshold as standard with little drop front to back. This allows the door to be installed below the floor level to give a smooth transition from floor to cill.

Multipoint Locking



The multipoint locking system provides locking points around the door operated by the handle. In addition to excellent security performance, these fixing points prevent the timber from moving, contributing to the long life of the door.



Doorset as shown: Diagram A - Sliding door viewed from inside with toughened glass and a silver Roto Extended handle. Fully finished in white internally and externally.

Night Vent



Ventilation can be provided by turning the handle to the upright position which drops the seals on the top of the door providing ventilation whilst retaining security. This method removes the requirement to lift the door when opening it, a method commonly used in many other systems (lift and slide doors).

Internal Beading



All doors are glazed from the inside providing enhanced security, improved weather performance, as well as protecting the bead resulting in longer life. The doors are also drained and vented to ensure the glazing system is protected allowing it to provide long term performance.

Large Doors

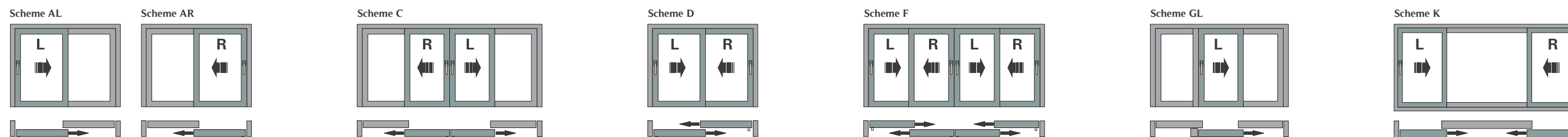


The design of the door system allows very large and heavy doors (up to 400kg), to be specified without compromising the sliding performance. The lack of a lift and slide process which is common in many alternative designs, means that the door handle can be rotated and the door can slide with the use of one finger, even if triple glazing is installed.

Opening Options

The doorset is available in a wide range of configurations, allowing it to be tailored to the size of the opening and the way that openings. In addition the door can be configured with a wide range of sash bars to achieve any required design. Please contact us

the room will be used. We have developed a three row version with the hardware supplier providing further options for larger



scheme GR also available



Doorset as shown: Inward Opening Diagram 330 Left with three doors sliding left (when viewed from outside), viewed from the inside with a white Roto handle. Fully finished in white internally and externally.

Low Resistance Sliders



The use of the best hardware systems available ensures that our doors have the best method of operation, the latest innovations and highest quality parts. The clearest way these can be experienced is in the operation of the door, which slides effortlessly on its rollers along the track with minimal input. This will last for the life of the doorset with only minimal maintenance.

Multipoint Locking



The multipoint locking system provides locking points around the door operated by the handle. In addition to excellent security performance, these fixing points prevent the timber from moving contributing to the long life of the door.

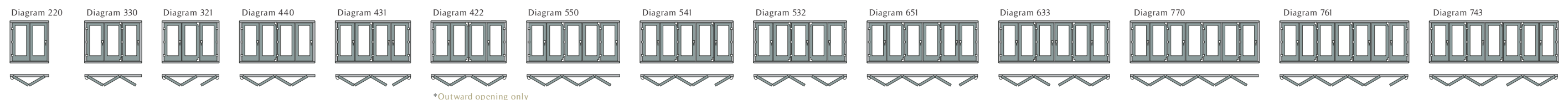
Adjustable Hinges



The nature of timber means that there will be some movement of the doors over time. Adjustable hinges allow for any movement in the doors to be simply adjusted to ensure that the doors can provide the same smooth feel as the day they were installed. These are available white, silver and brown.

Opening Options

Both inward and outward opening designs have the same wide range of possible configurations allowing the doorset to be almost any configuration is possible, so if you require anything different it will more than likely be possible.



Doorset as shown: Outward Opening Diagram 330 Left with three doors sliding right (when viewed from outside), viewed from the outside with a bronze cill, black hinges and Kirkpatrick handles. Fully finished in white externally and teak stain internally.

Range Of Cill Options



The cill is a hybrid of timber and aluminium to provide the best compromise of aesthetics and performance. The aluminium is available in silver and bronze. The cill is also available as a timber only option, but has reduced weather performance and should only be used in sheltered areas.

Weather Sealing



The use of draught seals on the door leaves and within the track ensure that all parts of the doorset are well sealed, providing excellent protection from the elements.

Multipoint Locking & Shoot Bolts



The outward opening doorset uses easy to operate shoot bolts on the top and the bottom of the door to lock into position (these can be specified with key operated locks) and are available in black, gold, satin chrome and chrome. The master door is supplied with a multipoint lock providing excellent security.

Adjustable Hinges



Using advanced adjustable hinges the doors can be set up to ensure that they open easily (doors usually require a small amount of adjustment after installation). The hinge is available in black, gold and satin chrome colour ways.

All Round Locking



The multipoint locking system provides locking points around all four sides of the door leaf. In addition to excellent security performance, these fixing points prevent the timber from moving contributing to the long life of the doorset.

Weatherbar



With the inward opening design profile, a weatherbar is required to deflect the water and provide good weather performance. This is available in a range of colours and can also be powder coated to match any paint colour.

Low Resistance Sliding



Low resistance sliding is achieved with the use of the best hardware system available. The clearest way these can be experienced is in the operation of the door which slides effortlessly on its rollers along the track with minimal input (with up to 160kg doors).



Doorset as shown: Tilting Sliding door viewed from inside with one door tilt & slide and one door fixed with white hardware and Roto Handle. Door finished in Moss Green internally and externally.

Draught Seals



This door design features a double rebate providing excellent weather performance. This coupled with advanced draught seals gives excellent results. Draught seals are available in white and brown and as standard we will select the one that suits the chosen paint colour.

Handle Positions

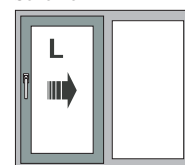


The locking system allows for both door positions to be controlled by the handle being turned to a different position. The first position allows for the sash to be tilted into the vent position and the second allows the door to slide open.

Opening Options

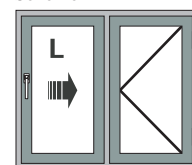
The doorset is available in a wide range of configurations, allowing it to be tailored to the size of the opening and the way that the room will be used. It uses the same system as our tilt and turn window allowing for window sashes and door leaves to be combined in any format required. The doors can either be tilt and slide or fixed and the window sashes can be either fixed, tilt & turn, turn only or tilt only. Please see right for a few suggestions.

Scheme A



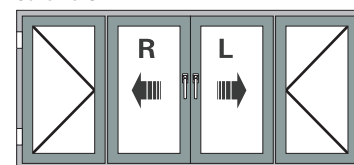
1 sliding sash (L or R)
1 fixed glazing

Scheme A2



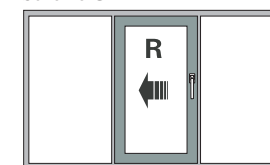
1 sliding sash (L or R)
1 turn-only sash

Scheme C



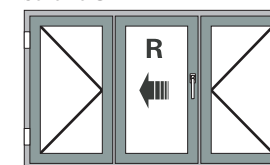
2 sliding sashes (L or R) with or without
center post profile
2 turn-only sashes

Scheme G



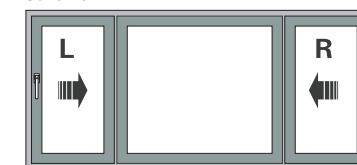
1 sliding sash (L or R)
2 fixed glazing

Scheme G2



1 sliding sash (L or R)
2 turn-only sashes

Scheme K

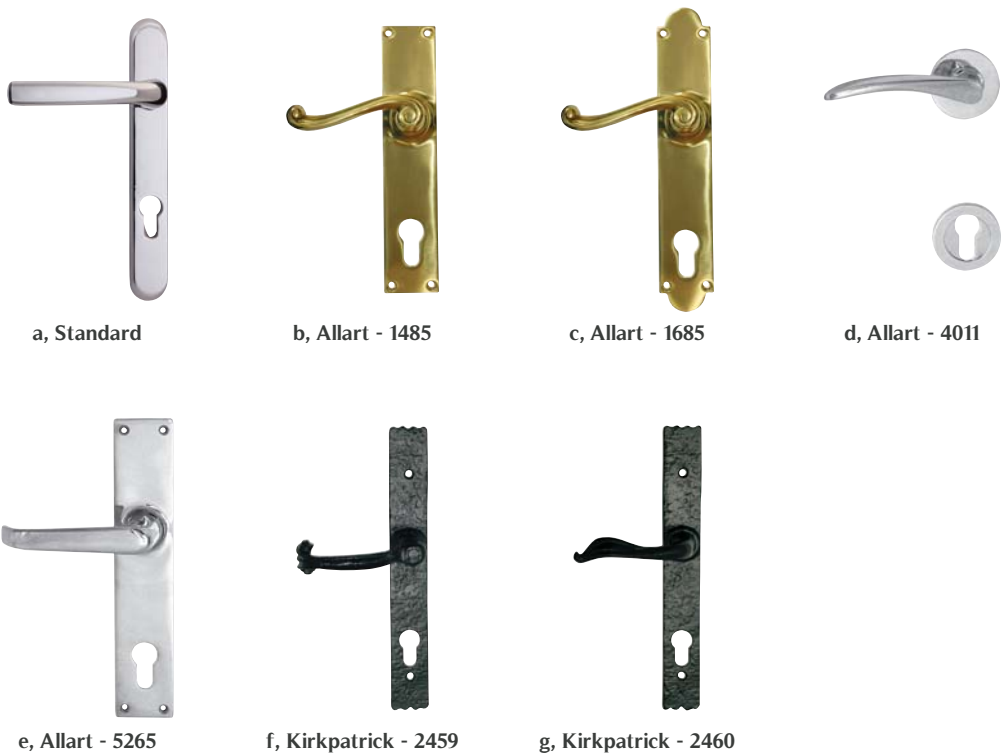


2 sliding sashes (L or R)
1 fixed glazing

Handle Options

Using high quality ironmongery, George Barnsdale doorsets can be supplied with a wide range of standard finishes and options, all of which are compatible with our high performance Euro-profile locking system.

French/Outward Folding Sliding



Sliding/Tilting Sliding



Inward Folding Sliding



Our range of Roto handles are used to get the most out of the hardware supplied on the relevant patio doors. Due to the multi-locking and multi-position features of these doorsets it is necessary to have a handle design that allows these operations to be performed simply and effortlessly. The handles are offered in a wide range of colours to match the building and other windows and doors installed.

Glazing Bead & Sash Bar Options

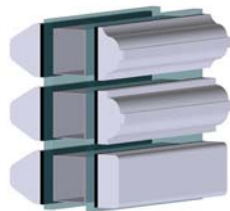
Beading:

Our beads are available as Standard, Ovolo and Pencil Round. All sashes in the traditional range are beaded internally to improve security and weather performance and result in a window with longer life.



Astragal Bars:

These are matched with the outside sash profile and internal glazing bead. They come with an internal glazing bar as standard.



Solid Glazing Bars:

These are available in any layout and are specified at 43mm wide as standard. This can be increased if required.

Glass

We have a wide range of options to suit any special requirements you may have including:

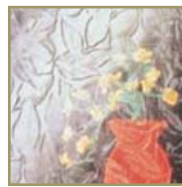
Toughened Safety Glass: Toughening process increases strength and safety.

Laminated Security Glass: Laminate provides additional security over a toughened unit.

Acoustic Glass: Increases already high level of sound insulation using specialist laminates and thicker glass.

Solar Control Glass: Allows heat gain from the sun to be matched to the requirements of a building.

Obscure Glass: Available in a wide range of patterns, with a sample shown below (the number in brackets indicates the obscurity on a 5 point scale with 5 being the highest). Additional patterns include sandblasted, Oriel and Oriel Textured (a sandblasted pattern on each float of textured glass). Glass can also be painted and tinted. For the full range please visit our website at www.georgebarnsdale.co.uk.



Lead:

We offer a wide range of options including widths (6, 9 and 12mm), colours (bright and antique) and styles (including square and diamond patterns).

Stained Glass:

We can provide coloured glass to your requirements (a photo of an existing design or a drawing is sufficient). These can be supplied with or without lead outlines.

Other Options:

We can install all available glazing systems, so please enquire if you have any special requirements. These may include integral blinds or sandblasted/coloured glass to a specific design (for example, your house number or name).

Timber

Our patio doorsets are manufactured from engineered timber from sustainable sources as standard. The timber is approved by either FSC or PEFC bodies and is selected for its outstanding performance and environmental credentials. As standard we use:

- Frames:** PEFC Redwood WoodHeart® (timber from the central heartwood of the tree, engineered to be free from knots whilst providing excellent stability and durability).
- Cill & Cill Extension:** FSC Hardwood for enhanced durability (the cill extension gets the most weathering).
- Doors:** FSC Laminated Red Grandis for providing a clear knot free face for the wide door rails and excellent stability preventing the door from excessive movement.



Coupled with our advanced coating system, this results in a doorset that retains the characteristics of the timber and will last indefinitely with minimal maintenance.

We can also offer the doorset in the following timbers if required (see our company brochure for more information):



Paint

Our advanced coating system has been developed to provide maximum protection, allow the timber to breathe and let the characteristics of the timber show through. This allows us to give a 10 year guarantee on paint finish (a 25 year guarantee may also be available - please contact us for more information).

- Colour:** We can provide almost any opaque or translucent colour. All we require is a RAL Standard, RAL Design, Natural Colour System (NCS) or British Standard (BS 4800) colour or an actual sample.



George Barnsdale Standard Colours:

Opaque*

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Translucent*

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- Dual Colour:** We can provide dual colour doorsets with a different colour inside to out or frame to sash. This also allows for the frame and sash to have a different dual colour specification if required.

*please note that actual colours may vary due to the print process

Guarantees

Our industry leading manufacturer backed guarantees:



Chestnut, Newport Road, London

This £500,000 new build residential house is located on an extremely tight site of former garages in Barnes, West London.

Project Details

- Product:** Inward opening tilt and turn windows, flush casement windows, outward opening doors and sliding doorsets.
- Timber:** Redwood WoodHeart® for the windows and door frames. Red Grandis for the doors.
- Finishes:** RAL 7003.
- Architect:** David Long Architects.
- Contractors:** Mane Developments - with windows installed by George Barnsdale installation team.
- Client:** Private residential client.



Project

The house is conceived as two separated blocks, each of two storeys, linked via a glazed stair core and arranged around two sides of a sunken garden. The house is entered via the glazed stairwell which commands the changes in level to the sunken garden with upper levels wrapped in horizontal timber cladding. The sunken courtyard provides light to the lower levels at the rear.

Environmental credentials include high thermal insulation, rain water buffering and long service life, as well as providing a habitat for flora and fauna, earning the design a place in the finals of the 2010 Grand Designs Awards.

George Barnsdale manufactured both windows and doors, consisting of inward opening tilt and turn windows, flush casement windows, outward opening entrance doors and large sliding doorsets for the project.



The large openings required high performance products that gave excellent thermal insulation and weather resistance, matching the low carbon credentials of the building. For the exceptionally large door openings, George Barnsdale supplied three leaf sliding doors, each on their own tracks that could open back to leave the spacious openings visually free.

The windows and door frames were manufactured from Redwood WoodHeart® and the doors were manufactured from Red Grandis and all were finished in RAL 7003.

Tongdean Avenue, Brighton

George Barnsdale designed, manufactured and installed a range of flush casement windows and patio doorsets into this stylish new build project in Brighton.

Project Details

- Product:** Flush casement windows and folding sliding patio doorsets.
- Timber:** European Oak throughout.
- Finishes:** Light oak translucent finish.
- Contractors:** Morningwood Ltd.



Project

The requirements for this project were to design windows and doors that would combine classic styling with contemporary specifications to achieve high performance and energy efficiency.

We designed and manufactured a combination of 59mm flush casement windows and 10 folding sliding doorsets. The windows and doors were manufactured from laminated oak and were supplied fully finished.

In addition to this, we also manufactured a number of other casement windows as well as some specialised designs including 8 circular windows, to complete this contemporary building.



The folding sliding patio doorsets are fitted with low resistance sliders to ensure easy operation by the user as well as multipoint locking to increase security performance. The locking mechanism also prevents the timber from moving, contributing to the long life of the door.

Due to the nature of timber, there will sometimes be some movement of the door over time. To overcome this, we fit all our patio doorsets with adjustable hinges which allows any movement to be corrected, ensuring that the doors provide the same smooth feel as the day they were installed.

This project combined classic styling with contemporary designs whilst maintaining performance requirements.

For more case studies on projects like yours please visit www.georgebarnsdale.co.uk.

About Us

At George Barnsdale, we have been making premium quality timber windows and doors since 1884. Every window and door is designed, engineered and hand finished in the UK by our team of skilled craftsmen using the finest materials and state of the art robotic machinery. Our technical team provide expert support and advice to ensure our products meet your aesthetic and performance requirements, enhance UK building regulations and reflect the character of your building. Investment in research, development and testing has enabled us to achieve the very highest levels in thermal, weatherproof, security and acoustic performance, in a range of products that have been sourced and manufactured in a sustainable way.

Credentials for Lasting Performance

- Design:** Internally beaded for security and long life; Double and triple gaskets for class leading weather performance; Traditional designs matching period features with a specialist range for listed buildings (historic range) and modern buildings (contemporary range); Designs fully tested by UKAS approved third party test houses.
- Timber:** Use of high quality engineered timber providing excellent durability and stability characteristics; Range of redwoods and hardwoods available; All timber sourced sustainably through either FSC or PEFC certification schemes.
- Paint:** Cutting edge robotic paint facility allowing precise control of paint application; advanced coating system providing excellent protection, whilst allowing the characteristics of the timber to remain visible; 10 year guarantee with no redecorating required available on most products (7 years for stain finish).
- Glass:** High performance glazing with Saint Gobain Planitherm Total+, argon fill and warm edge spacer as standard; Many options including security, safety, acoustic, thermal, solar gain/reduction, obscure patterns, triple glazed unites, slim units (including Pilkington Legacy and Histoglass); Internally beaded, drained and vented glazing systems for improved performance and life; All units tested to BS EN 1279 and supplied with a 10 year warranty (except some slim unit options). Our glazing systems are supplied to a higher specification than the industry standard - see our website technical area for more information.
- Fittings:** High quality fittings used as standard; Wide range of colour and style options; Products meet BS 7950 / PAS 23/24 requirements where applicable; All fittings covered by 5 year guarantee.
- Thermal:** Optimised designs through thermal modelling by in-house BFRC simulator; Products can meet an A rating; First A rated timber window in UK; Window U-value and Window Energy Rating displayed on all quotations; Window U values less than 1 W/m²K available on most products; Passivhaus window option now available.
- Wind/Water:** Double/triple seals around the window provide excellent sealing from weather; Investment in research, development and testing have optimised designs and extensive test data is available to validate performance.
- Acoustic:** Draught seals and advanced glazing provides excellent noise reduction as standard. Our acoustic glass range can provide further improvements if required (a range of test data in accordance with BS EN ISO 717-1 is available).
- Security:** High security fittings supplied as standard; Increased security specification is available if required; Windows can be manufactured to achieve BS EN ISO 7950 (requirement for Secure by Design) if required; Doors can be manufactured to PAS 23/24 if required.

Certifications & Standards



GEORGE BARNSDALE

ESTABLISHED 1884

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