

Sales Guide

for the Liniar Range







The Liniar brand has become synonymous with innovation; with 52 patents and registered designs to date, the list continues to grow..



The Liniar range is

designed by experts with

over 500 years of

experience in the industry

and tested by our in-house

robot, Mark II.



Liniar products are leadfree, energy efficient, recyclable, made from recyclable material where possible and easy to transport.



The full Liniar range is perfectly matched - with 8 stocked colours, unlimited specials and a single point of guarantee.



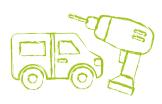
With a global parent company and a flat, friendly structure, Liniar meets the needs of customers large and small.



Our technical team provides expertise and advice on all products across the Liniar range for new and existing customers.



With continued investment in facilities, plant, tooling, machinery, new products and staff, rest assured we're here for the long haul.



Liniar's patented designs are built with the installer in mind - so all products are simple to fit, saving precious time on the job.

Discover Liniar

Liniar is the trademarked brand name for the range of products designed, tested and extruded in the heart of Derbyshire since 1974.

Liniar is part of the global Quanex Building Products group, alongside sister company Avantek Machinery, which provides a range of machinery and support to window fabrication companies all over the UK and Ireland.

Quanex is a New York Stock Exchange-listed company, and since becoming Liniar's parent in 2015, it has supported and helped retain its core values. These include product innovation, customer and employee loyalty investment in the latest tooling technology and production facilities and product of the highest quality, fully matching products.

At a glance...

- 400,000 ft² of purpose-built facilities in Derbyshire; Denby Hall and Cotes Park
- 500+ customers in the UK and Ireland
- £100m+ Group turnover
- 11 foiling lines, including 2 'special' lines
- Around 40 million metres of plastic delivered per year
- Foam PVCu mixing plant has additional capacity for 14,000 tonnes per year

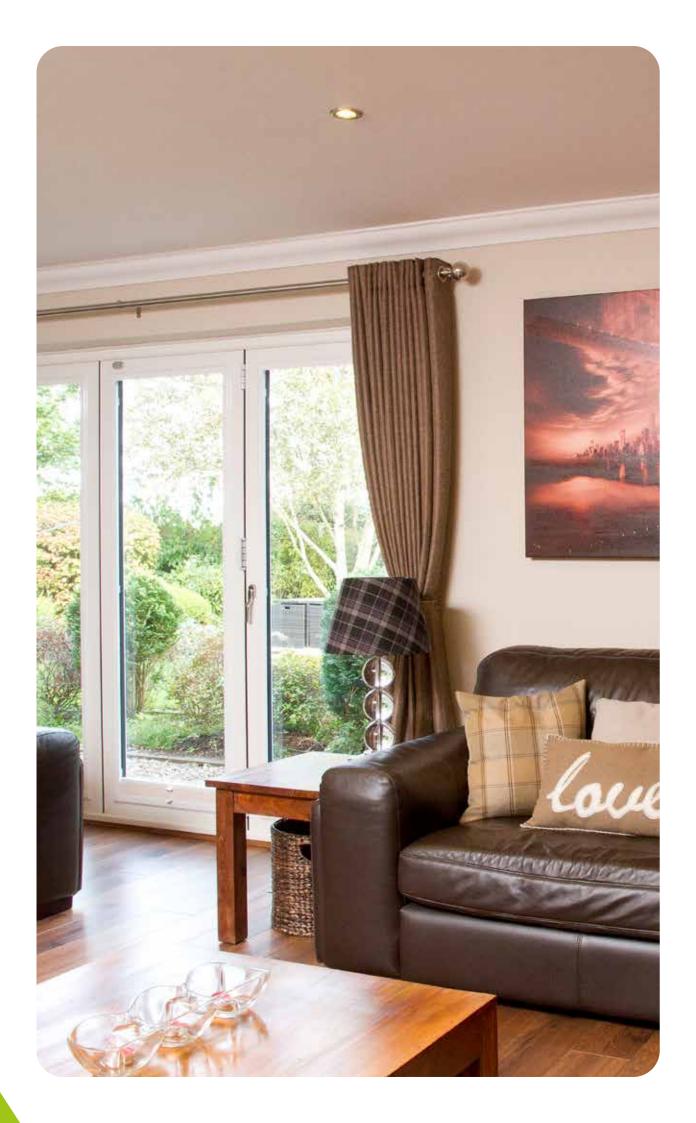
- 32 extrusion lines (5x twin strand and 1x quad strand)
- 3 injection moulding machines
- 600+ Group employees
- 250 extrusion and mould tools maintained
- Cooling pits under extrusion hall help us recycle
 2.5 billion gallons of water per year
- PVCu mixing plant opened in 2014 with capacity to mix 60,000 tonnes per year

For the latest company statistics, please visit www.liniar.co.uk/at-a-glance





Liniar customers can benefit from Group deals with Avantek Machinery – put them in touch with the Avantek sales team to find out more!



Contents

Introduction

Routes to market

Quality and assurance

Product guarantees

Building regulations

Liniar window and door profiles

Cost effective

Glossary

The Liniar range

Accreditations

Colours

Door System (ctnd)

EnergyPlus90 door

French door

Patio door

Standard bi-fold door

ModLok™ bi-fold door

Alumina System

Introduction

Main door components

Alumina doors

Window System

Introduction

Main window components

Casement window

French window

Bay and Bow windows

Flush Sash window

Tilt & Turn window

Bi-Fold window

Reversible window

EnergyPlus90 window

Conservatory Roof

Introduction

Main components

Conservatory roof

Roofline and Building Products

Soffits, fascias and trims

Building products

Door System

Introduction

Main door components

ModLok

Residential door

Composite door

Outdoor Range

Introduction

Main components

225mm Decking

SwitchBoard Decking

Fencing

Piling

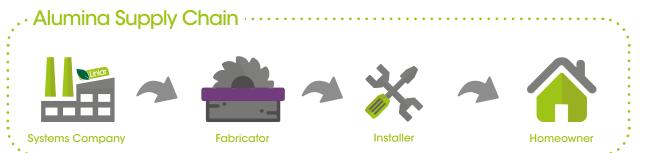
Routes to market

There are different supply chains for each Liniar product range.

Windows, doors and roofs are manufactured by Liniar's fabricator customers and sold through trade counters and installers. Roofline, trims, decking, fencing and piling products are manufactured by HL Plastics and sold through a range of stockists, trade counters and installers throughout the UK and Ireland.

HL Plastics also produces bespoke kits for conservatory roofs, Alumina bi-folding doors and decking, which can be purchased through Liniar customers.





Installer





Quality and assurance

Liniar designs all its products with the highest quality in mind

Maintaining the quality of Liniar products is of paramount importance – a Liniar product is not a Liniar produc unless all of its components are HL Plastics Ltd approved. We are committed to supporting our customers in manufacturing the highest quality, fully accredited and guaranteed products.

With this in mind, we encourage all fabricators to apply to become Liniar Approved.

Liniar Approved Fabricators

Liniar windows and doors are manufactured by a wide network of fabricators across the UK.

In order to ensure consistently high standards across our product range, all fabricators are encouraged to become Liniar Approved.

They can apply for this accreditation after just 3 months fabricating Liniar systems, with the following criteria:

- The fabricator uses only Liniar as its main PVCu system.
- A signed Liniar Supply Agreement is in place.
- The fabricator's account is up to date.
- The fabricator has a dispute resolution process in place.



Audit Process

A stringent audit process will take place with a Liniar technical engineer, to confirm that all Liniar components are used and the finished products are in line with the recommendations in the Liniar's fabrication manual.

Once a fabricator has passed the audit, they will receive a Liniar Approved plaque and certificate. This status lasts for one year, when a re-audit will take place.





Warning

It is important to note that a Liniar product is not a Liniar product unless it contains all Liniar approved components.

Therefore, becoming Liniar Approved is the only way fabricators can receive sales leads from Liniar. In addition:

- Any unapproved or substituted components will render Liniar guarantees totally void.
- The sale of a product under the Liniar name that includes parts not supplied by HL Plastics will infringe our Liniar Registered Mark.
- Only Liniar specified and supplied products can be used in conjunction with Liniar-supplied test evidence for Part Q, Secured By Design and British Standards compliance.
- All thermal simulations on the Liniar website are based on Liniar specified and supplied components and are invalid where substitute products are used.
- Any products supplied for commercial contracts with non-approved components will not be supported by Liniar and further commercial support and lead generation will cease.
- Liniar technical support and calculations are carried out on the basis of fully Liniar products being supplied, but will be deemed void if non-approved components are found to be used.

Fabricators can apply for non-Liniar parts to be approved and written into their agreement, for commercial reasons – however, only parts which do not adversely affect Liniar's standard for the overall quality of the finished product will be considered for approval.

CORGI Fenestration ····

The Liniar Approved Fabricator scheme has been pre-approved with CORGI Fenestration. This means if fabricators apply for, and achieve, Liniar Approved status, their CORGI Fenestration registration will be quicker and cheaper.

Liniar became the first PVCu systems company to successfully achieve formal registration to the CORGI



Fenestration scheme in 2017, and its Liniar Approved Scheme has been verified by CORGI.

This means the CORGI Fenestration application process is vastly reduced, saving both time and money.

CORGI Fenestration registration demonstrates a commitment to qualified staff and quality products.

The whole supply chain is covered, unlike other schemes - giving homeowners peace of mind for a quality installation.

See https://www.liniar.co.uk/corgi/ for more details.

Product guarantees

Wherever possible, each Liniar profile or product carries a guarantee to give customers peace of mind.

In order for guarantees to be valid, the finished product must contain ALL Liniar approved components. Guarantee claims should be made back through the supply chain in the first instance

Please see individual product guarantees for more details.

Foils are covered by Renolit's own guarantees.



Product guarantee

Liniar guarantees are issued in association with its raw material suppliers and based on proven technology for UV-stabilised products.

All products must be installed to Liniar's recommendations.

For further details on individual product guarantees, please visit $\underline{\text{www.liniar.co.uk/guarantees}}.$



Bi-Folding door guarantee

Liniar guarantees its Bi-folding door systems providing the product(s) comply with all of the following:

Manufacture

Product manufacture must comply with the latest issue of the Liniar 'Bi-fold Fabrication Manual' at the time of manufacture. Only Liniar parts must be used during manufacture, failure to do this will void all guarantees.

Installation

Installations must comply with all aspects of the latest issue of the Liniar 'Bi-fold Installation Manual' at the time of installation.

Maintenance

Details regarding required maintenance are specified within the latest version of the Liniar 'Bi-fold Installation Manual' and must be adhered to at all times after installation.

Liniar Bi-folding doors consist of a wide variety of components that cannot be covered under one guarantee and therefore are grouped below into respective qualifying periods:

PVCu extrusions - 10 years

All PVCu extrusions are manufactured using tried and tested formulations from approved suppliers and will not warp, split or discolour.

Moving parts - 5 years

All moving parts are guaranteed against failure. Details regarding the correct operational use of the product are documented within the Liniar 'Bi-fold Installation Manual.' Failure due to mis-handling will void all guarantees.

Hardware finish - 1 year

The guarantee applies to product finishes for 1 year but does not include faults caused by wilful or neglectful damage, excessive wear and tear and situations of atmospheric or installation conditions that may lead to accelerated finish breakdown.

Patio door guarantee

Liniar guarantees its Patio door systems providing the product(s) comply with all of the following:

Manufacture

Product manufacture must comply with the latest issue of the Liniar 'Patio Fabrication Manual' at the time of manufacture. Only Liniar parts must be used during manufacture, failure to do this will void all guarantees.

Installation

Installations must comply with all aspects of the latest issue of the Liniar 'Patio Installation Manual' at the time of installation.

Maintenance

Details regarding required maintenance are specified within the latest version of the Liniar 'Patio Installation manual' and must be adhered to at all times after installation.

The Liniar Patio door consists of a wide variety of components that cannot be covered under one guarantee and therefore are grouped below into respective qualifying periods:

PVCu extrusions - 10 years

All PVCu extrusions are manufactured using tried and tested formulations from approved suppliers and will not warp, split or discolour.

Moving parts - 5 years

All moving parts are guaranteed against failure. Details regarding the correct operational use of the product are documented within the Liniar Patio Installation Manual.' Failure due to mishandling will void all guarantees.

Hardware finish - 1 year

The guarantee applies to product finishes for 1 year but does not include faults caused by wilful or neglectful damage, excessive wear and tear and situations of atmospheric or installation conditions that may lead to accelerated finish breakdown.

Alumina door guarantee

Liniar guarantees its Alumina door systems providing the product(s) comply with all of the following:

Manufacture

Product manufacture must comply with the latest issue of the 'Alumina Fabrication Manual' at the time of manufacture. Only Liniar parts must be used during manufacture, failure to do this will void all guarantees.

Installation

Installations must comply with all aspects of the latest issue of the 'Alumina Installation Manual' at the time of installation.

Maintenance

Details regarding required maintenance are specified within the latest version of the Alumina Installation manual' and must be adhered to at all times after installation.

The Alumina door system consists of a wide variety of components that cannot be covered under one guarantee and therefore are grouped below into respective qualifying periods:

Aluminium and PVCu extrusions – 10 years

All Aluminium and PVCu extrusions are manufactured using tried and tested formulations from approved suppliers and will not warp, split or discolour.

Moving parts - 5 years

All moving parts are guaranteed against failure. Details regarding the correct operational use of the product is documented within the 'Alumina Installation Manual'. Failure due to mis-handling will void all guarantees.

Hardware finish - 1 year

The guarantee applies to product finishes for 1 year but does not include faults caused by wilful or neglectful damage, excessive wear and tear and situations of atmospheric or installation conditions that may lead to accelerated finish breakdown.

Please seek approval for using Alumina products in 'special' conditions - e.g. swimming pools etc

Outdoor ranges

The Liniar Outdoor Range includes the following systems: Decking, Balustrade, Fencing and Piling. Liniar Limited provides the Product Warranty shown below, covering physical integrity and colour performance for up to 10 years – please visit www.liniar.co.uk/ warranties for full details, conditions and exclusions.

The Liniar Outdoor Range Limited Warranty must be read carefully before any Liniar products from the Outdoor Range are installed. You must comply with certain instructions relating to installation and maintenance in order to claim under this Product Warranty.

Roofline guarantee ·

Liniar profiles are manufactured using tried and tested formulations from approved suppliers and will not warp, split or discolour for 10 years from date of installation.

This guarantee is issued in association with our raw material suppliers and based on proven technology for UV stabilised products. All products to be installed to Liniar recommendations.

Rainwater guarantee ··

Liniar rainwater products are currently sourced from Brett Martin, with all products covered under its comprehensive guarantee. More details can be found at www.liniar.co.uk/about/guarantees.

Building regulation compliance

We have all seen the shocking results that can occur when building products are manufactured with sub-standard parts or poorly managec construction techniques.

Building regulations exist to prevent such occurrences, and all Liniar products are tested to comply with the necessary kitemarks and accreditations so developers and homeowners can rest assured of their quality.

It should be noted that all Liniar testing takes place using full-size products, containing all Liniar components. If a fabricator does not use all Liniar approved parts to manufacture a Liniar product, it cannot be guaranteed by Liniar.

· Building regulations

Part B - refers to fire safety and is divided into 2 sections. Part 1 addresses dwellings (residential buildings shared by 6 or less people) and Part 2, buildings other than dwelling houses.

Part F - details ventilation requirements to maintain indoor air quality. The key aim is to provide a ventilation system capable of limiting accumulation of moisture and pollutants.

Part L - refers to conserving fuel and power by raising the energy performance of a building.

Part M- requires the inclusive provision of ease of access to buildings, together with requirements for disabled access.

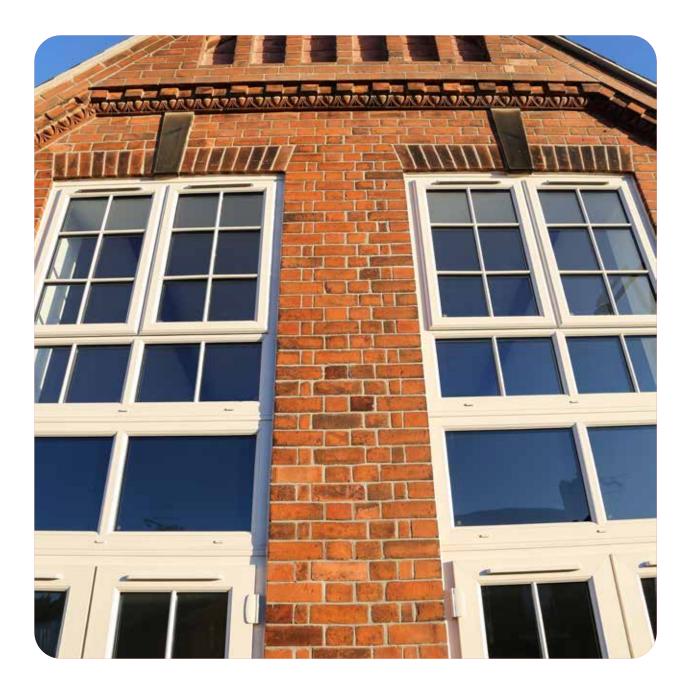
Part Q-covers the security of dwellings and refers to new dwellings and change of use. It covers the standard of security for windows and doors, which must shown by test to meet the requirements of PAS24.

· The importance of compliance · · · · · · · · · ·

A Liniar product is not a Liniar product unless all of its components are Liniar approved.

Any fabricator using substituted components in such products must re-submit products through the strict testing process, at their own cost, before claiming compliance.

It's important to remember that if this leads to a product failing which causes damage including death, personal injury or any loss of or damage to personal property, then in addition to civil liability for damage caused by a defective product, the companies responsible, including their directors, may be held to be criminally liable which may result in an unlimited fine or imprisonment.



. · Specifying Liniar

Architects and Specifiers are encouraged to visit the specifier's centre at www.liniar.co.uk/specifiers, where they can find a host of information, including requesting a hard copy of the Liniar Specification Guide.

Liniar products are featured on RIBA's NBS Plus and Product Selector to make specification easier.

In addition, Liniar provides a Windows Energy Rating calculator where specifiers and fabricators can calculate the WER values of a specific window and download a PDF copy for their customers.



Liniar window and door profiles

Liniar offers three different types of window and door profile, each delivering different levels of thermal efficiency.

Standard



- 4 chamber 70mm profile
- U-values as low as 0.9 W/m²K
- · Chamfered or Sculptured

EnergyPlus



- 6 chamber 70mm profile
- U-values as low as 0.8 W/m²K
- Chamfered or Sculptured

EnergyPlus90



- 9 chamber 90mm profile
- U-values as low as 0.5 W/m²K
- Chamfered only



52 patents and registered designs

Spacer bars

Warm edge spacer bars can be selected, separating each glazed panel for higher energy efficiency.

Screw retainer

Liniar windows require less steel, achieving hardware retention to PAS24/SBD standards.

Thermal dam

The patented thermal dam creates a multi-chamber thermal barrier at the frame's outer edge.

Glazina

Liniar profiles are able to accept double or triple glazing - or even quad glazing in the 90mm system. 28mm, 36mm & 40mm - 70mm

48mm & 56mm - 90mm

Bubble gasket

Liniar's patented 'bubble' gasket is co-extruded alongside the frame itself - so no heat loss or leaks.

Glazing flipper

The unique glazing flipper creates a thermal barrier to seal the perimeter keeping the cold out.

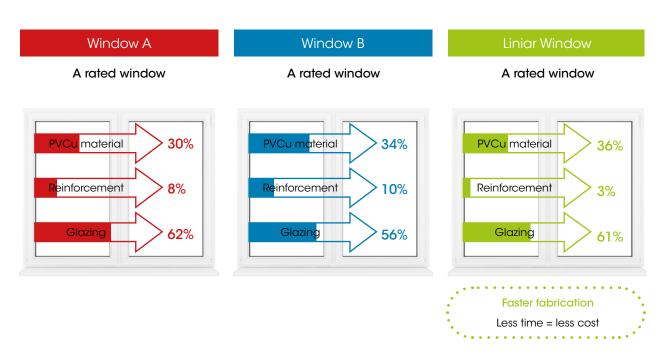
Cost effective

The Liniar system was designed from scratch, using reduced steel compared to other window systems, with no loss in strength.

Liniar profiles can be more expensive, per metre, than other PVCu systems.

This is due to the patented innovations that they contain, as well as the modern machinery used to create them. The Liniar system is designed with reduced reinforcement and often requires a lower specification of glazing to reach high Windows Energy Ratings - both of which can contribute to overall cost savings when fabricating a window.

The model below helps to demonstrate that the cost of the PVCu profiles should not be considered in isolation when potential customers are comparing against other systems.





Glossary

There are many terms used within our industry, some of which may be new to you. Here's a handy reference guide.

0-9

44mm/48mm door slab - Composite doors are usually offered in two different widths, with each door starting life as a whole 'slab' before being custom designed and made to your requirements.

70mm system - A standard window width, from outside to inside, which allows for the replacement of timber windows without making building modifications.

90mm system - 90mm system - a window system measuring 90mm depth; more thermally efficient and ideal for the commercial market. See EnergyPlus90.

A

Accreditations - The list of independent testing and quality standards the Liniar range has been subjected to and passed, offering additional peace of mind to purchasers.

Ancilliaries - Liniar offers a range of ancilliary products including cills, trims, reinforcements and structural couplings such as butt joints and bay pole assemblies.

Anti-bump - Additional security features to prevent a bump key being used to gain unlawful entry to a property.

Anti-lift - Additional security features to prevent external sliding doors being lifted or moved.

Anti-snap - Additional security features to prevent burglars snapping the lock's cylinder to gain unlawful access to your property.

Approved documents - Guidelines set out for different areas of construction to help specifiers and contractors meet Building Regulation standards.

Approved fabricators - Window manufacturers that have been approved by Liniar, having passed a series of tests to ensure products are manufactured to our exacting high standards, using only Liniar-approved parts.

Astragal bars - Also called Georgian bars, they offer the illusion of small, individual panes of glass within a larger pane. Foiled to match your window for a seamless appearance.

A++ to G rating - The British Fenestration Rating Council (BFRC) Window Energy Ratings offer a clear way to show consumers the energy rating of a particular product. The familiar coloured 'rainbow' label is similar to those you will see on refrigerators and other electrical appliances, with A+ the most energy efficient.

B

Balustrade - The handrail and picket system used in conjunction with Liniar PVCu decking, offering an attractive, safe and strong finish for decking installations.

Bay pole - A Liniar bay pole assembly is required for the correct installation of bay and bow windows.

BBA - The British Board of Agreemnt is the UK's main organisation for construction products and installers. For a product to be approved by BBA it has to be subjected to tests to ensure it complies with building regulations.

Bead - The PVCu glazing bead which securely clips in around a window's glazing unit, holding the glass in place and providing weather tight seal.

Bevelled - Also known as the Chamfered style of window profile.

BFRC - The British Fenestration Rating Council is the premier UK authority for independently verified ratings of energy efficient windows and energy efficient doors.

Bi-fold door - A door consisting of anywhere between 2 and 7 panes which slide and fold back on themselves

Bubble gasket - Liniar's patented design, the bubble gasket is the black rubber seal you see around the window frame. This is co-extruded onto the PVCu frame, creating a continuous weather-tight seal.

Building products - a collective name for matching add-ons such as soffits and fascias, trims, cleaners etc

Building regulations - Government-set criteria that all new building projects must comply with – including energy efficiency, security and weather performance.

C

Casement window - A standard term for windows which are top or side hung and which open inwards or outwards. Liniar casement windows are available in a wide variety of styles, with bespoke sizes for your project.

CE Marking - All complete, finished products made from Liniar profiles should be supplied with CE Marking, which is the manufacturer's declaration that the window or door meets the requirements of the applicable European directives. (BS EN 14351)

Chamfered - A style of window profile, or frame, offering a bevelled edge which looks flat, rather than curved (sculptured). Often used to give a contemporary appearance, or to resemble the old putty lines found on traditional windows. Also known as bevelled.

Cill - Also known as sill, the external PVCu cill offers an attractive finish to a window and helps to prevent rainwater dripping directly onto the brickwork underneath. Internal cills are usually made from window board.

Co-extruded gasket - A process where the gasket, or seal, is seamlessly manufactured onto the window profile as part of the extrusion process. This process is known as "co-extrusion."

Composite door - A door made from a combination of materials, designed to offer the appearance and strength of a timber door with the thermal and maintenance benefits of PVCu.

C

Conservatories - A sun room or garden room attached to a dwelling, consisting of at least 50% translucent materials within the walls and 75% of the roof area.

Crash stops - A built-in feature of patio doors, to prevent the sliding pane crashing into the frame when the door is fully opened. Unlike other patio systems, Liniar's ModLok™ patio has hidden crash stops for better aesthetics.

Cyclic testing - A process of durability testing where the product is subjected to repeated cycles of the same motion. The Liniar ModLok bi-fold and patio door systems have been cyclic tested by our in-house articulated robot.

· D

Double glazing - Glazing units formulated from two panes of glass filled with either air or argon - vastly more thermally efficient than the original single glazed panels used in years gone by.

Dummy sash - A sash that does not open, usually included to enhance the appearance or symmetry of a window.

Drip bar - Part of a residential or composite door, the drip bar helps to deflect rainwater away from the door and prevent water pooling.

Е

Eaves - the part of a roof that meets or overhangs the walls of a building

Energy efficiency - "Using less energy to provide the same level of service" is a general definition. In our industry that would be using less energy to keep your home at the desired comfortable heating level.

EnergyPlus - Liniar's 6-chambered energy efficient window profile, available on many products in the range to offer even better U-values.

EnergyPlus90 - Liniar 9 chambered 90mm window and door Passivhaus system

Extrusion - The manufacturing process of making plastic products – raw material is heated and pushed through bespoke tooling to produce specific, detailed shapes before being cooled and foiled to add optional ranges of colour.

F

Fascia - A vertical board at the end of the roof eaves, adjoining the soffits, creating an area able to accept guttering components.

Floating Mullion - the join in the centre of French door and windows, enabling a fully opening aperture.

Flush Sash - The term for windows where the sash fits flush within the rebate. This style was developed to mimic pre-1932 traditional timber windows and is ideal for conservation areas and modern developments alike.

F

Foiling - The process of mechanically covering the PVCu profile with an attractive, non-peel, coloured woodgrained finish, giving it a totally different appearance and colour.

French door - A pair of doors with glass panes extending for most of their length. Available with side lights.

French window - Similar to a casement window, however both panes are side hung and open outwards with the mullion attached to one side, providing unrestricted views and excellent means of fire escape.

G

Gasket - The black weather-tight seal around your windows and doors. Liniar's unique patented bubble gasket has been specially developed from scratch to give excellent weather performance.

Georgian bar - Also called astragal bars, they offer the illusion of small, individual panes of glass within a larger pane. Optionally foiled to match your window for a seamless appearance.

GGF - The Glass and Glazing Federation is the main representative organisation for companies involved in the manufacture of products and services for all types of glazing.

Glazing flipper - Developed by Liniar, this optional extra creates a thermal barrier and additional gasket to offer even greater thermal efficiency.

Glazing platform - Small but important PVCu mouldings that support the glazed units when installing them into a Liniar frame. We recommend only the appropriate Liniar glazing platforms are used with our products.

Gravelboards - Designed to protect timber fencing panels from moisture seeping up from the ground. Liniar gravel boards can also be stacked to form a full fencing panel.

Н

Handrail - Part of the Liniar balustrade system, and the only fully sculptured system in the UK, the handrail provides a beautiful finishing touch to any decking installation.

Hardware - Usually refers to the handles, hinges and other non-PVCu elements of your Liniar products.

Head vent - The Liniar head vent clips to the top of the frame and allows the circulation of air to a property in a controlled and secure manner.

J

Jacks - Found in bay poles, provides structural support to dead loads.

Jamb - The vertical side post of a doorway or window frames.

Joints - Frames can be welded or mechanically jointed.

K

Keeps - The metal locking points found on doors or windows, designed to accept the product's lock mechanism. Also known as strikers.

1

Large frame - Also referred to as the Outer Frame, this is the part of the window or door that adheres to the building, remains static and houses the opening sashes.

Low threshold - An optional extra on all Liniar doors, low thresholds provide family friendly and wheelchair access to properties. Some Liniar low thresholds offer thermally broken options for higher thermal efficiency.

M

Main frame - The main outer frame housing a window or door.

Mastic - The silicone seal between the outer frame and the wall, also used to seal all elements exposed to damp or moisture such as screw holes.

Mechanically jointed - when a PVCu window or door is screwed together instead of welded - usually giving a more traditional appearance.

ModLok[™] - Steel or aluminium reinforcing combined with multi point high security locking system featured in our ModLok[™] Patio Door and ModLok[™] Bi-Folding door.

Mullion - The vertical section that divides window units and provides structural support to the frame.

Multi-chambered - Refers to the inside of Liniar's PVCu profiles or frames and helps to prevent the transfer of heat from the inside to the outside of the property.

N

NBS Plus - A library of manufacturers technical product information used by specifiers .

Nogging - Liniar's innovative fixing component for its galvanised steel decking sub-frame, designed to save installers time.

0

Outer frame - Also referred to as the large or main frame, this is the part of the window or door that adheres to the building, remains static and houses the opening sashes.

Ovolo - Also known as the Sculptured style of window profile.

P

Pascal - The unit used to measure pressure, equal to one Newton per square metre.

Part B - Part B refers to Approved Document B for Building Regulations, setting out guidelines for fire safety.

Part L - Part L refers to Approved Document L for Building Regulations, setting out thermal efficiency standards that all windows must comply with.

Part F - Part F refers to Approved Document F for Building Regulations, setting out ventilation guidelines/standards.

Part M - Part M refers to Approved Document M for Building Regulations and contains the guidelines set out for access to buildings. in England, Scotland and Ireland.

Part Q - Part Q covers the security of dwellings and refers to new dwellings only. Reasonable provison must be made to restrict unauthorised access to any dwelling in England, Scotland and Ireland.

PAS 24 - Accreditation proving the enhanced security of Liniar's windows and doors, PAS 24 has been independently assessed and guarantees your product is covered by a UKAS accredited certification.

Passivhaus - The term Passivhaus refers to standard for energy efficiency in a building, reducing its ecological footprint. It results in ultra-low energy buildings that require little energy for space heating or cooling.

Patent - A licence for the sole right to exclude others from making, using or selling an invention, to protect the inventor from imitations. Liniar has a string of patents and Registered Designs across the whole range.

Patio door - A set of doors with one or more glazed full sliding panels, often used to offer access to a garden. The Liniar patio door is available with 2, 3 and 4 pane options.

Picket - The vertical posts that provide support between bottom rails and handrails on the balustrade system, or vertical pickets as part of the Liniar fencing range.

Piling - Interlocking PVCu system used as an alternative to steel or timber piles. Has a variety of uses, primarily for the construction, environmental and flood prevention industries.

Posts - For the Liniar fencing or balustrade system, posts are designed to perfectly match and provide sturdy structural support.

Polyamide - material used for Alumina's lock, separates two aluminium surfaces enhancing thermal performance.

Post cap - To provide a decorative finish to the top of Liniar's twin-walled posts - can also be replaced with post cap lights for an alternate appearance.

Profile - the name for a length of PVCu produced in Liniar's extrusion plant.

PVCu - Unplasticised polyvinyl chloride, also called "PVC" or "PVCu" in the UK and Europe, or "vinyl" in the USA.

Q

Q-Lon - a type of seal featured on Liniar windows and doors.

Quad Glazing - glazing units constructed from four panes of glass - used with EnergyPlus90.

R

Rainwater - the collective term for guttering and drainpipes - part of the Building Products range

RAL - RAL numbers are the colour references used for matching colours on different types of products and surfaces.

Registered design - Similar to a patent, however not as strict, a Registered Design relates to the overall appearance of the product resulting from one or more visual features.

Residential door - Made from PVCu, a Liniar residential door can be used as a front or back door for most properties and can be made in a wide range of styles and colours.

Reinforcement - Usually made from steel or aluminium, reinforcement is essential in alternative PVCu window systems - the Liniar system is different in that it utilises less steel through its innovative design.

Recycling - The process of using all waste PVCu from the extrusion process to make alternate products - Liniar piling is made from 100% recycled materials and zero waste is sent to landfill.

RIBA - the Royal Institute of British Architects - Liniar products are listed on RIBA product selector and NBS Plus.

Roofline - the collective term for fascias and soffits - part of the Building Products range.

S

Sash - The opening part of a window.

Sculptured - A style of window profile, or frame, offering a sculptured edge which looks curved, rather than bevelled (chamfered). Often used for a more traditional appearance. Also known as Ovolo.

Secured by Design - Products carrying Secured By Design status have been assessed and tested to meet the security standards of the Association of Chief Police Officers.

Shootbolt - A moveable bar or rod that slides into a socket in order to securely fasten and lock a window/door.

Sill - Also known as cill, the external PVCu sill offers an attractive finish to a window and helps to prevent rainwater dripping directly onto the brickwork underneath. Internal sills are usually made from window board and can be painted to match internal décor.

Soffit - Used in conjunction with fascias, soffits are the horizontal boards between the fascia and a building's wall.

Substrate - name for the base of a PVCu profile, usually used to indicate colour e.g. Black foil on white substrate.

Sub-frame - The starting point for a Liniar PVCu deck, the sub-frame is made from stainless steel and easily couples together to provide strength and stability.

Structural couplings - Structural members that couple one window or door to another and increase structural performance with high wind loading or for large apertures.

SwitchBoard - 150mm two-sided PVCu composite deckboard with a grooved and woodgrain side.

Т

Thermal break - Using a material such as polyamide to separate two aluminium surfaces to enhance the thermal performance.

Thermal dam - Another patented innovation from Liniar, the thermal dam helps to prevent heat loss from the outer edge of the frame.

Thermal efficiency - "Using less energy to provide the same level of service" is a general definition. In our industry that would be using less energy to keep your home at the desired comfortable heating level.

Threshold - the bottom part of a door that is stepped over. Liniar doors have a choice of threshold, inc. Part M.

Till & Turn window - An open-in casement window that is side-hinged, but can also tilt inwards.

Transom - A strengthening crossbar, usually horizontal, that divides window panes.

Triple glazing - Glazing units constructed from three panes of glass filled with either air or argon - considered more thermally efficient than double glazed units.

Trickle vent - An optional built-in feature to allow ventilation, located at the top of the window frame or sash.

Usually a routed slot through section.

U

uPVC - Unplasticised polyvinyl chloride, more usually called 'PVC' or 'PVCu' in the UK and Europe, or 'vinyl' in the USA.

U-Value - A measure of heat loss, expressed as W/m²K. The lower the U-value, the better the thermal efficiency.

V

Vent - An optional built in feature to allow ventilation, located at the top of the window frame or sash. Usually a routed through section.

Vertical Slider - A style of window where the sash slides upwards. Liniar does not currently offer a VS.

W

WER - Window Energy Ratings - offering a clear way to show consumers the energy rating of a particular product. The familiar coloured 'rainbow' label is similar to those on electrical appliances.

Wind loading - The force applied to a structure as a result of the impact of wind.

Window board - internal capping at bottom of window frame, to cover over cavity external brick to internal brick

The Liniar range

· · · Windows · · · · · ·



Casement Window

Offering complete versatility with slim sightlines for natural light.



French Window

Slim sightlines and a floating mullion for unrestricted views



Bay and Bow Window

Offering complete versatility with slim sightlines for maximum light.



Flush Sash Window

The look of traditional timber with modern thermal benefits.



Resurgence

The first double-rebated flush PVCu system on the market.



Tilt & Turn Window

Perfect as a fire escape or simply for ventilation.



Reversible Window

With 180° reversible action for ease of access to external pane.



EnergyPlus90 Window

Passive House compliant with a 9 chamber design.



Bi-Fold Window

Ideal to fully open up a wall with an opening span of 2 to 4 panes.

··· Doors ····



Residential Door

Perfectly matching, offering the same thermal benefits.



Composite Door

A maintenance-free solution with thermal performance.



EnergyPlus90 Door

Residential door to match the EnergyPlus90 window system.



French Door

Slim sightlines and a floating mullion, in a range of styles.



Sliding Patio Door

Ergonomic design and effortless opening mechanism.



Standard Bi-fold

The first bespoke PVCu bi-fold doors in the UK, from 2 to 4 panes.



Modlok™ Bi-fold

With patented Queen's Award winning ModLokTM technology.



Alumina Doors

Aluminium doors with sash sizes up to 1.2m wide and 2.5m high.



·· Conservatories/Orangeries



Conservatory Roof

Energy efficient and in a range of styles, shapes and designs.



Elevate

A lantern-style roof in rectangular & square shapes to enhance flat roofs.



·· Roofline ····



Soffits and Fascias

Offering a perfectly matching solution to any installation.



Shiplap Cladding

Offering a timber appearance without ongoing maintenance.



Rainwater

A wide selection of Brett Martin gutter and downpipe systems.

· · Building products



Trims

Manufactured using the same high quality processes and materials



Cleaners and Adhesives

High quality and certain to help finish the job with top results.



Fixings and Packers

In a variety of sizes, available in handy packs & Liniar approved.

··· Outdoor Range



Decking

Long-lasting, low maintenance decking systems.



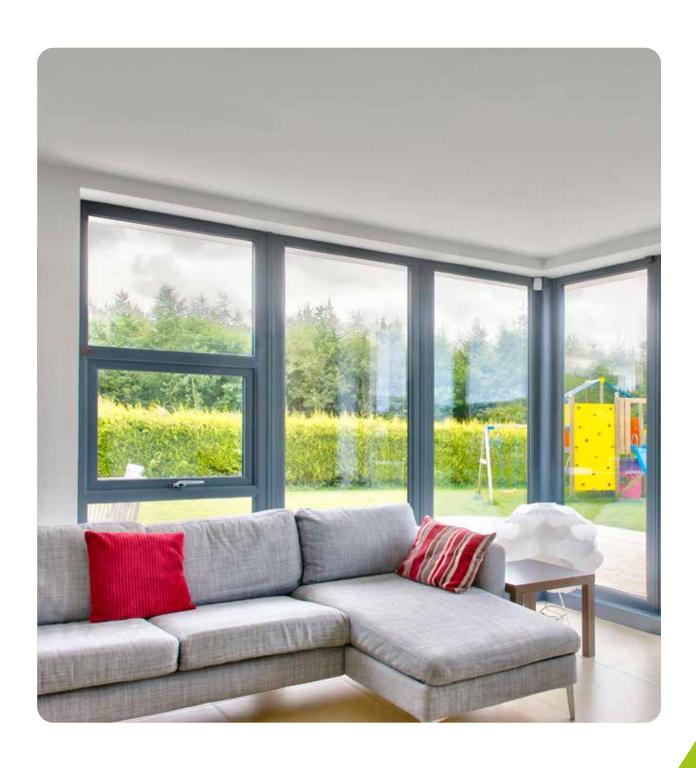
Fencing

A range of PVCu fencing that offers an attractive alternative.



Piling

A versatile range of piling and retention systems.



Liniar accreditations

Liniar tests all of its products to meet the highest British standards, through an ongoing testing programme. If a product contains all Liniar-approved and tested components then it also meets these criteria.

Liniar products hold the following accreditations:

	PAS24	BBA	Secured by Design	BS 6375	BS12608	ISO9001
Casement Window	✓	✓	✓	✓	✓	✓
EnergyPlus Casement Window	✓	×	✓	✓	✓	✓
Flush Sash Window	✓	×	✓	✓	✓	✓
Tilt & Turn Window	✓	✓	✓	✓	✓	✓
EnergyPlus 90 Window	✓	×	✓	✓	✓	✓
Reversible Window	✓	×	✓	✓	✓	✓
Resurgence Window	✓	×	✓	✓	✓	✓
Residential Door	✓	✓	✓	✓	✓	✓
French Door	✓	✓	✓	✓	✓	✓
Patio Door	✓	×	×	✓	✓	✓
Standard Bi-fold Door	×	×	×	✓	✓	✓
ModLok™ Bi-fold Door	✓	×	✓	✓	✓	✓
ModLok™ Residential Door	✓	×	✓	✓	✓	✓
ModLok™ French Door	✓	×	✓	✓	✓	✓
Alumina Bi-fold Door	✓	×	✓	\checkmark	×	\checkmark
Alumina Residential Door	✓	×	✓	✓	×	✓
Alumina French Door	✓	×	✓	✓	×	✓

	BS 476	BS 7976	BS 660-2	BS 428	Class 1Y Fire Rating
Decking (Deckboards & SwitchBoard)	✓	✓	✓	✓	\checkmark

	Class 1Y Fire Rating
Roofline (Soffits and Fascias)	\checkmark

SBD

Secured by Design status is awarded to products designed with exceptional security features as their main priority. Liniar products which hold this certification are tested to meet the requirements of the Association of Chief Police Officers.

ISO9001

The Liniar factory has achieved BS EN ISO 9001 accreditation, meeting British Standards for a quality management system. This standard means that Liniar customers benefit from consistently great products and service.

CORGI Fenestration

Liniar headquarters has met strict criteria across management processes, such as QMS (Quality Management Systems), allowing CORGI Fenestration to recognise best practice.

ISO14001

The Liniar factory has achieved BS EN ISO 14001 accreditation, meeting British Standards for an exceptional Environmental Management Policy.

BBA

The BBA (British Board of Agrément) is the UK's major authority offering approval of construction products, systems and installers. Their certificates are recognised by architects, engineers and specifiers as an impartial review of performance.

BS EN 12608

BS EN 12608:2003 is the standard of quality, consistency and performance required for PVCu extruded hollow profiles. Products are regularly tested to ensure that they continue to meet these standards.

PAS24

This accreditation is part of the British
Standards system and shows the product
has been subjected to a series of tests, demonstrating
enhanced security performance, air and water
tightness and wind loading to BS 6375.

BS 6375

Parts 1, 2 and 3 of British Standard BS6375 are the requirements for performance of windows and doors. This includes weather performance testing, inclusive of wind loading, functionality testing and cyclic testing.

BS 476-7

Part 7 of BS 476 refers to fire tests on building materials and structures, which 'determines the classification of the surface spread of flame of products.'

BS 7976

Part 2 of BS 7976 test is used to determine the moving (dynamic) resistance to floor slip. Liniar deckboards' slip resistance was good in both wet and dry conditions.

BS 660-2 and BS 428

Both standards refers to wear resistance of PVC floor coverings and is measured in terms of 'volume lost.'

\$

Class 1Y Fire Rating

See BS 476-7.



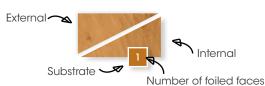
Colour Range

The most popular coloured profiles and components across the different Liniar ranges are manufactured and stocked by Liniar, meaning they can be ordered and delivered on a weekly cycle.

Factory fitted foils are applied to white or coloured substrates as shown here.

Substrate colours





Sculptured Windows (inc.Flush Sash) · · · ·

Stocked solid colours



Stocked foil colours

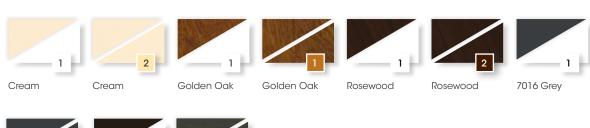


Chamfered Windows ·

Stocked solid colours



Stocked foil colours





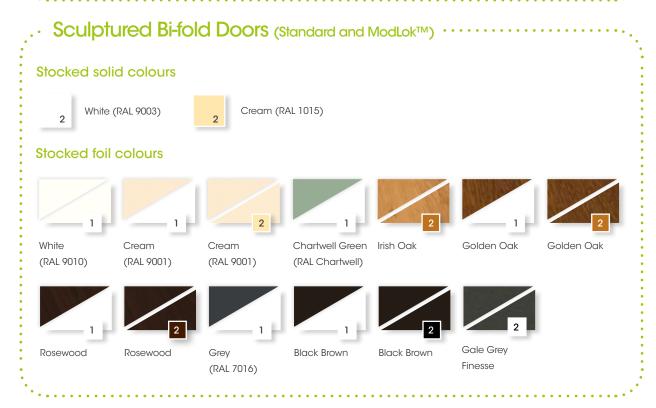
Finesse













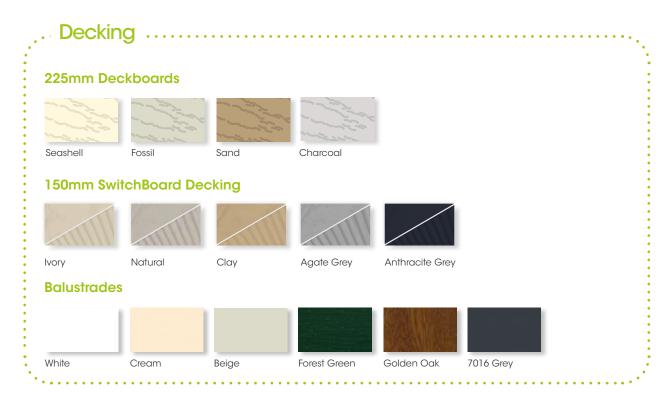
Alumina Doors Stocked powder coated colours Any RAL colour is available on request. Black - RAL 9011 Grey / White - RAL 9910 Grey - RAL 7016 White Stocked foil colours White Cream Cream Chartwell Green Irish Oak Golden Oak Golden Oak (RAL 9010) (RAL 9001) (RAL 9001) (RAL Chartwell) Black Brown Rosewood Rosewood Grey Grey Black Brown (RAL 7016) (RAL 7016)

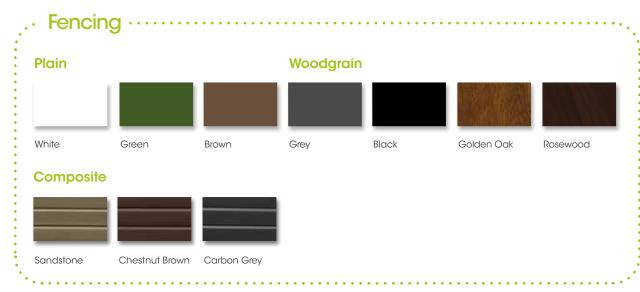


Elevate.



Stocked solid colours White (RAL 9003) Stocked foil colours White Cream Irish Oak Golden Oak Chartwell Green Rosewood (RAL 7016) Black Brown





Full Colour Range

Thanks to its extensive in-house lamination facility, Liniar is able to offer a staggering 36 colour options and a whopping 3,330 colour combinations or short lead times.



To order a swatch booklet, please use the following product codes:

Liniar full colour range: TMMIS0027 Alumina: TMMIS0011

Outdoor: TMMIS0035 Woodec: TMMIS0047

All colours are representative only - please show customers a Liniar swatch booklet for accurate colours and finishes. Not all Liniar products are available on all substrates - please refer to the Liniar swatch booklet. Colours and substrates subject to change. RAL numbers are quoted to be the nearest match.

Window system

Liniar's innovative window system is available in a choice of chamfered and sculptured suites, with all styles in a wide range of colours and finishes to suit any building or project.

Thermally efficient

Liniar's revolutionary 70mm profiles are far more thermally efficient than traditional PVCu window profiles. By removing unnecessary steel reinforcement, instead developing the latest in multi-chambered profile technology, the heat stays where it belongs - inside the property.

Cost effective

The reduction in steel and a faster fabrication process results in a more cost effective window at the fabrication stage. Fitter friendly features also reduce installation times, saving money on the job. The occupant also benefits with systems capable of A++ and U-values as low as 0.8W/m²K.

Innovative features

Launched in 2008, the Liniar system was designed from scratch with a host of patented features. It was the first system to maximise thermal efficiency as well as symmetrical sightlines and drain path.

Why Choose Liniar Windows?

- Ultra-slim sightlines for maximum light
- Patented co-ex bubble gasket tested and assessed to BFRC energy rating standards with zero air leakage
- Designed with two thirds less steel than a GGF standard window
- Meets requirements of PAS24 with reduced steel reinforcing
- All systems conform to BS 6375 Part 1 for weather performance and Part 2 for window operation and strength characteristics.
- Available in a wide range of colours and foiled finishes



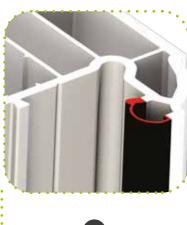
Main window components





- B Outer Frame (also referred to as Main Frame, Large Frame or Small Frame)
- Sash (can also be Dummy Sash)
- D Transom
- Mullion
- F Cill
- G Bead
- Glazing
- Hardware





2

Co-extruded Bubble Gasket



3

Thermal Dam

Casement window

Accreditations ·····















Secured by Design

BBA

BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

· Options

Frame

Standard Sculptured (curved)

<u>or</u> or

EnergyPlus Chamfered (bevelled)

Glazing

28mm Double Glazing

36mm/40mm Triple Glazing

Lowest possible U-Values

	Double Glazed	Triple Glazed	
Standard	1.3W/m ² K	0.9W/m ² K	
EnergyPlus	1.2W/m ² K	$0.8W/m^2K$	

Windows Energy Rating (WER)

As high as (A) +++



33dB

Additional items

Georgian bars Astragal bars Mock horns Head vent





Two-thirds less steel than a standard GGF window = faster fabrication.



Compatible with all other Liniar suites.



Document Q compliant - latest
Building Regulations



Achieves an A++ rated window with lower spec glass = more cost effective.



Patented screw retainer - less steel to stock, no screws, quick fabrication



Holds all BSI and security accreditation = quality assurance.



Co-extruded patented bubble gasket = no need to clean corners.



Equal, large drainage chambers, with a symmetrical drain path inside and out



Reputation for innovation in the marketplace = strong brand identity.

Installer selling points



Single leg beading system = easy to glaze.



Cleans up without the need for solvents = less mess.

2

Reduced reinforcement
= lighter to carry and easy to
drill through frame



Wide range of compatible add-ons, trims and accessories.



Unique glazing platforms = better drainage, offers added strength, fewer call backs



Matching products and marketing support = increase sales to consumers.

Consumer selling points



Thermally efficient = saving money on heating bills.



Wide choice of colours from stock
= faster lead times.



Aesthetically pleasing design = symmetrical sightlines.



Slim sightlines = more attractive, allowing in more light.



Patented bubble gasket = no draughts or leaks.



Full profile guarantee = quality assurance and peace of mind.



PAS24, Secured By Design and Part Q compliant = highly secure.



100% lead-free = eco and family friendly.



British made = friendly, helpful and customer-focused.

French window

Accreditations







BBA









PAS24

Secured by Design

BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

Options

Frame

Standard Sculptured (curved)

<u>or</u> <u>or</u>

EnergyPlus Chamfered (bevelled)

Glazing

28mm Double Glazing

<u>or</u>

36mm/40mm Triple Glazing

Lowest possible U-Values

	Double Glazed	Triple Glazed
Standard	1.3W/m²K	0.9W/m ² K
EnergyPlus	1.2W/m²K	0.8W/m ² K

Windows Energy Rating (WER)

As high as A +++



Additional items

Georgian bars Astragal bars Shootbolt locking Head vent





Part of Liniar system = no separate profiles to stock.



Achieves an A++ rated window with lower spec glass = more cost effective.



Able to manufacture large sizes = greater sales opportunities.



Co-extruded patented bubble gasket = no need to clean corners.



Two-thirds less steel than a standard GGF window = faster fabrication.



Uses standard Liniar beading = reduces overall stockholding.

Installer selling points



Single leg beading system = easy to glaze.



Cleans up without the need for solvents = less mess.



Reduced reinforcement
= lighter to carry and easy
to drill through frame.



Wide range of compatible add-ons, trims and accessories.



Unique glazing platforms = better drainage, offers added strength, fewer call backs.



Matching products and marketing support = increase sales to consumers.

Consumer selling points



No central mullion = ideal as a fire escape.



Thermally efficient = save money on heating bills.



Slim sightlines = more attractive, allowing in more light.



PAS24, Secured By Design and Part Q compliant = highly secure.



Aesthetically pleasing design = symmetrical sightlines.



Patented bubble gasket = no draughts or leaks.



Full profile guarantee = quality assurance and peace of mind.



100% lead-free = eco and family friendly.



British made = friendly, helpful and customer-focused.

Bay and Bow windows

Accreditations















Secured by Design

BS EN 12608

ISO 9001

BS EN 6375

Options

Frame

Standard

Sculptured (curved)

or

or

EnergyPlus

Chamfered (bevelled)

Glazing

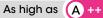
28mm Double Glazing

36mm/40mm Triple Glazing

Lowest possible U-Values

	Double Glazed	Triple Glazed
Standard	1.3W/m²K	0.9W/m ² K
EnergyPlus	1.2W/m²K	0.8W/m ² K

Windows Energy Rating (WER)



Additional items

Georgian bars

Astragal bars

Mock Horn Dedicated bay poles/jacks





Part of Liniar system = no separate profiles to stock.



Two-thirds less steel than a standard GGF window = faster fabrication.



Achieves an A++ rated window with lower spec glass = more cost effective.



Co-extruded patented bubble gasket = no need to clean corners.



Dedicated baypoles/posts and cappings to suit all applications



Holds all BSI and security accreditation = quality assurance.

Installer selling points



Single leg beading system = easy to glaze.



Liniar bay pole system suits all angles, clip fittings = one man fix



Reduced reinforcement
= lighter to carry and easy
to drill through frame



Unique glazing platforms = better drainage, offers added strength.



Cleans up without the need for solvents
= less mess.



Dedicated bay pole jacks with evidence of max load bearing capacity

Consumer selling points



Thermally efficient = saving money on heating bills.



Slim sightlines = more attractive, allowing in more light.



PAS24, Secured By Design and Part Q compliant = highly secure.



Wide choice of colours from stock
= faster lead times.



Patented bubble gasket = no draughts or leaks.



100% lead-free = eco and family friendly.



Aesthetically pleasing design = symmetrical sightlines.



Full profile guarantee = quality assurance and peace of mind.



British made = friendly, helpful and customer-focused.

Flush Sash window

Accreditations













Secured by Design

BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

Options

Frame

Standard

with EnergyPlus Outer

Frame

Sculptured (curved)

Glazing

28mm Double Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed
1.3W/m ² K	1.2W/m ² k

Windows Energy Rating (WER)

As high as (A) +



Additional items

Georgian bars

Astragal bars





Flush system designed to replicate the appearance of timber windows.



Co-extruded patented bubble gasket
= no need to clean corners



Utilises standard profile machinery = simple to fabricate.



28mm double or triple glazing options = greater thermal options.



Manufactured with existing Liniar outer frame = less stockholding.



Can be mechanically jointed for an even more authentic appearance.

Installer selling points



Easy to install = same as other Liniar windows



Cleans up without the need for solvents = less mess.



More cost effective than competing flush window systems = higher profit

2

Single leg beading system = easy to glaze.



Utilises all standard Liniar ancillaries
= familiar to use.



Matching products and marketing support

= helps increase sales to consumers.

3

Unique glazing platforms = better drainage and strength



Eco-friendly = enables installers to offer the highest thermal efficiency to consumers.

Consumer selling points



Beautiful appearance that can create a traditional or contemporary look.



PAS24, Secured By Design and Part Q compliant = highly secure.



100% lead-free = eco and family friendly.



Designed to replicate a pre-1932 timber window = ideal for conservation greas.



Patented bubble gasket = no draughts or leaks.



Fully weather tested, surpassing all requirements.



Thermally efficient = saving money on heating bills.



Aesthetically pleasing design = flush on external faces.



British made = friendly, helpful and customer-focused.

resurgence window

Accreditations













Secured by Design

BS EN 12608

ISO 9001

BS EN 6375 CORGI Fenestration

Options

Frame

80mm outer frame, 70mm standard sash Sculptured (curved)

Glazing

28mm Double Glazing or 36mm/40mm Triple Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed
1.2W/m²K	0.8W/m²k

Windows Energy Rating (WER)

As high as A +++

Additional items

Georgian bars Astragal bars

Bays Bows

Couplers Transom nose extended





The first double-rebated & double-gasketted flush sash system on the market, with no manual gasket insertion required.



Fully foiled glazing areas to outer frame and transom profiles for added authenticity.



Four fabrication options for the ultimate in adaptability.



Co-extruded patented bubble gasket - no need to clean corners.



Competitive system which is easier to fabricate than other timber alternative systems.



PAS24 compliant even with mechanically jointed option.

Installer selling points



Can be fitted & glazed in the same way as the Liniar casement window.



First double-rebated flush sash system
- totally weatherproof.



Fully foiled glazing areas when window is opened, for added authenticity.



More cost effective than competing timber-alternative systems, with no unsightly external seals.



Includes Liniar glazing platforms for better drainage and strength



Thermally efficient, with A++ Windows Energy Ratings and U-values as low as 0.8 W/m²K.

Consumer selling points



The look of a timber window with the high thermal efficiency of PVCu – and the low maintenance.



Double rebated system ensures the window will withstand the worst of weather conditions.



No visable external gaskets in the shadow gap around the sash, for a sleek appearance.



Authentic woodgrain foiled options, even when the window is open, for added authenticity.



Features Liniar's co-extruded patented bubble gasket = no draughts or leaks, with Window Energy Ratings to A++.



The ultimate in adaptability – either contemporary or traditional to suit most buildings.



Highly secure, with PAS24 and Secured By Design – even on mechanically jointed windows!



Wide choice of colours and finishes available from stock, with hundreds more on longer lead times.



Covered by the Liniar 10 year guarantee.

Tilt & Turn window

Accreditations













PAS24

Secured by Design

BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

Options

Frame

Standard

Sculptured (curved)

<u>or</u>

Chamfered (bevelled)

Glazing

28mm Double Glazing

36mm/40mm Triple Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed		
1.3W/m²K	0.9W/m ² K		

Windows Energy Rating (WER)

As high as A



Additional items

Georgian bars Head vent

Astragal bars





No separate profiles to stock.



Achieves an A rated window with lower spec glass = more cost effective.



Uses standard Liniar beading = reduces overall stockholding.



Will take concealed or slimline hardware



Available in chamfered or sculptured = more choice for installers.



Can also be made as a French window.



Two-thirds less steel = faster fabrication.



Co-extruded patented bubble gasket
= no need to clean corners

Installer selling points ··



Simple beading system = easy to glaze.



Cleans up without the need for solvents = less mess.



Reduced reinforcement = lighter to carry and install.



Wide range of compatible add-ons, trims and accessories.



Unique glazing platforms = better drainage, offers added strength.



Matching products and marketing support = helps increase sales

Consumer selling points



Can be used as a fire escape = peace of mind.



Window opens fully = easier to clean from the inside.



Night vent = allows air to circulate while you sleep.



Thermally efficient = saves money on heating bills.



PAS24, Secured By Design and Part Q compliant = highly secure.



Patented bubble gasket = no draughts or leaks.



Fully matching with the rest of the Liniar range.

Bi-fold window

The Liniar bi-fold window is increasingly popular within the UK and is manufactured from Liniar Standard Bi-fold door components.

It offers the ability for homeowners to open up a whole wall of their home, whilst retaining valuable wall space for furniture.

Ideal for open plan kitchens, orangeries and modern living, the bi-folding window spans up to 4 panes wide and is in the flush sash style.

Accreditations









BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

Options

Frame

Standard

Sculptured (curved)

Glazing

28mm Double Glazing

Lowest possible U-Values

Double Glazed

Standard

1.3W/m²K

Additional items

Georgian bars

Astragal bars

Sash transom





In-demand, popular item = good sales opportunities.



Co-extruded patented bubble gasket = no need to clean corners.



Same system as Liniar standard bi-fold door = fewer parts to stock.



Uses standard Liniar beading = reduces overall stockholding.



Continuous hardware developments



Sizes down to 750mm high = ideal for orangeries and kitchen extensions.

Installer selling points



Open in and open out options = wider choice of applications.



Wide range of matching products = single point of guarantee.

2

Simple beading system = easy to glaze.



Full colour installation guide and video = fewer callbacks.

3

Niche product = differentiate your services.



Marketing support = helps increase sales to consumers.

Consumer selling points



Fully opens up a wall with furniture underneath = ideal for orangeries.



Patented bubble gasket = no draughts or leaks.



From 2 to 4 panes, opening in or out = versatile range of options.



100% lead-free = eco and family friendly



A modern take on a timber design = more thermally efficient.



Fully guaranteed = quality assurance and peace of mind.

Reversible window

Accreditations













Secured by Design

BS EN 12608

BS EN 6375

CORGI Fenestration

Options

Frame

EnergyPlus

Chamfered (bevelled)

Glazing

28mm Double Glazing

36mm/40mm Triple Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed
1.3W/m ² K	1.0W/m ² K

Windows Energy Rating (WER)

As high as (A) +++



Additional items

Georgian bars

Astragal bars





Popular in Scotland and Ireland as well as high-rise = new opportunities



Able to manufacture large sizes = greater sales opportunities.



Designed to suit both PN and Yale reversible gearing = more choice.



Co-extruded patented bubble gasket = no need to clean corners.



Clever design features = one-piece drip bar offers weather protection.



Existing sections from Liniar range inc. beading = reduces overall stockholding.

Installer selling points



Includes a triple seal arrangement = no callbacks for draughts.



Wide range of matching products = single point of guarantee.



Versatile window system = more options for customers.



Full colour installation guide and video = fewer callbacks.



Simple beading system = easy to glaze.



Easy fit drip bar with concealed fixings
= weather protection.

Consumer selling points



Sash rotates a full 180° = glass can be safely cleaned from the inside.



Fully flush on both sides with slim sashes = beautiful appearance.



PAS24, Secured By Design and Part Q compliant = highly secure.



Ideal for difficult to access locations, e.g. above a conservatory.



Triple seal arrangement = withstands storm force winds.



Patented bubble gasket = no draughts or leaks.



Moving pane never intrudes into the room = no snagging on curtains.



Thermally efficient = saving money on heating bills.



Fully guaranteed = quality assurance and peace of mind.

EnergyPlus90 window

Liniar's EnergyPlus90 is one of an elite band of windows that are able to comply with the exacting standards of Passive House.

EnergyPlus90 is unique in that its 9-chambered profile has been designed to meet the triple challenges of thermal efficiency, noise reduction and security.

The 90mm system has been designed to look and act like a 70mm system and is ideal for the commercial market

Accreditations













PAS24

Secured by Design

BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

· Options

Frame

EnergyPlus90

Chamfered (bevelled)

Glazing

48mm and 56mm Triple Glazing

<u>or</u>

56mm Quadruple Glazing

Lowest possible U-Values

Triple Glazed	Quadruple Glazed
0.7W/m ² K	0.5W/m ² K

Windows Energy Rating (WER)

As high as A ++

c Rating 42dB

Additional items

Georgian bars

Astragal bars





90mm system ideal for the commercial and retail market.



Delivers acoustic benefits = reduces noise levels by up to 42 decibels.



Co-extruded patented bubble gasket = no need to clean corners after welding.



Offer Passivhaus – to 0.5 W/m²K system.



Utilises standard profile machinery = simple to fabricate.



Less steel thanks to patented screw retainer



PAS24, Secured By Design and Part Q compliant.



Looks and acts as a standard 70mm system; sightlines, frame cover and clearances.



Equal large drainage chambers, with a symmetrical drain path inside and out

Installer selling points



Easy to install = fit in exactly the same way as Liniar 70mm system.



Cleans up without the need for solvents = less mess.



Simple beading system = easy to glaze.



Eco-friendly = enables installers to offer the highest thermal efficiency



Unique glazing platforms = better drainage, offers added strength.



Matching products and marketing support = helps increase sales

Consumer selling points



Passivhaus compliant – high thermal efficiency = saving money on energy bills.



Noise reduction of 42 decibels - ideal for urban living.



100% lead-free = eco and family friendly.



PAS24, Secured By Design and Part Q compliant = highly secure.



Chamfered style for a contemporary appearance.



Fully weather tested, surpassing all requirements.



Patented bubble gasket = no draughts or leaks.



Aesthetically pleasing design = symmetrical sightlines.



British made = friendly, helpful and customer-focused.

Door system

The profile around a Liniar door contains multiple chambers to minimise the transfer of cold and heat. This, together with other innovative design enhancements, helps to minimise energy costs.

Residential Doors

Liniar fabricators offer a wide selection of PVCu residential doors, all with the same energy efficient profile as Liniar windows.

Composite Doors

Offering up to 6 times the insulation of a timber door a Liniar composite door offers the look of timber with superb thermal performance.

French Doors

An attractive alternative to sliding patio or bi-folding doors, French doors open inwards or outwards, with the highest thermal performance and security.

Patio Doors

Featuring the patented ModLok™ system, a combined reinforcement and multi-point locking system. In addition, features a unique eight-whee acetal system

Bi-Fold Doors

Available in 2 to 7 panes and featuring the patented ModLok™ system, in the form of an aluminium exo-skeleton.

Why Choose Liniar Doors?

- Supreme thermal performance compared to other doors on the market
- Available in a wide range of colours and foiled finishes
- Frames and cills fully match windows
- Patented co-ex bubble gasket tested and assessed to BFRC energy rating standards with zero air leakage shown in the results
- Composite doors available with 44mm and 48mm door slabs
- Meets requirements of PAS24, Secured by Design and are also Part Q compliant
- Available with a wide range of accessories, from matching sidelights to letterboxes, along with a choice of handles and hinges



Main Resi/Composite door components



Main French door components





Main Patio door components













Highly Robust 8-wheel Acetal Roller

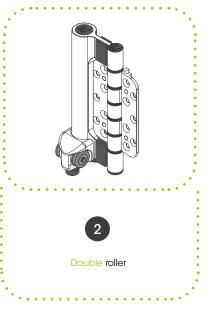
Main Bi-fold door components





Hardware







ModLokTM

Developed by Liniar in conjunction with the world's leading lock manufacturers, the revolutionary ModLokTM technology is available in our residential, French, bi-fold & patio door systems.

ModLok™ for Patio doors

The Liniar patio system features the innovative $ModLok^{TM}$ system to combine steel reinforcing with a high security locking mechanism – offering far greater security than other patio door systems.

Strong and secure

With four hook bolts plus two shootbolts at the top and bottom of the sliding door, the Liniar patio's locking mechanism has been designed so the hooks don't protrude into the room, even when the door is open, making it extremely family friendly.

To make the patio door even more secure, choose the latest 'anti-snap' locking cylinders. With 3-star security, these cylinders offer even greater protection against the more determined would-be intruder using tools to break the cylinder and gain entry by manipulating the door to open.

Low threshold option

The Liniar low threshold, both with or without integral ramp, is thermally broken, adding to the energy

efficiency of your patio doors. As with the bi-fold low threshold, no excavation is required to fit, cutting down on installation time and mess. Choose from silver or gold options to co-ordinate with handles.

Better for the environment

Not often considered when buying a new product for your home, ModLokTM technology has a big environmental advantage when the doors eventually come to the end of their life.

Internal metal parts included within other PVCu systems mean that they cannot easily be recycled without lots of effort to strip and cut them down.

However, as ModLok™ comprises seamless steel sections, on the exterior of each frame, they are simple to separate once the doors are removed, enabling the PVCu to be recycled faster and with much less effort - no need to cut apart.



ModLok™ for Residential, French and Bi-folding doors

ModLok™ is a highly innovative combined reinforcing and locking mechanism, bringing additional strength and rigidity to the doors and enabling you to have even wider configurations of bi-folding and patio doors.

Strong and secure

The Liniar bi-fold door provides the strength and rigidity of an aluminium bi-fold combined with the thermal efficiency and colour options of a PVCu door. The ModLok™ exo-skeletal system ensures only the master door will open first with certain schemes, so there's no chance of spraining locks by trying to open the wrong door.

The shootbolt locking mechanism designed into each Liniar ModLok™ bi-folding door ensures that it is bolted firmly into the stainless steel track, maximising security.

Built in anti-lift features, anti-bump cylinders and optional anti-snap cylinders combine to bring you peace of mind.

Size wise

ModLok™ also offers enhanced security features, including three opposing hooks and two shootbolts built in to every master door, plus two anti-lift shootbolts on every slave door.

Liniar's ModLokTM has been designed to take the PVCu sector into new areas. Its fully patented aluminium exo-skeleton means expansion and contraction are minimised. The exoskeleton adds structure and resists torsion, meaning ModLokTM bi-folds can almost reach the same size parameters as their aluminium counterparts – you can choose up to 7 panes wide to span the entire width of your garden room and open it to the outside.

We've added slim hinges with the fixings hidden inside, not only maintaining the sleek lines but enhancing security as they can't be unscrewed from outside.

We wanted to offer a low threshold, without the need for expensive and messy excavation, so we designed our own clever threshold solution.

We've even designed folding keys to avoid any problems with them being left in the locks during operation – it's often the small things that make a huge difference.

Continuous aluminium exoskeleton perimeter



Residential door

Liniar's PVCu residential doors are available as opening in or opening out, and are designed to match perfectly with the window range to create a co-ordinated and attractive appearance for any home.

Each Liniar fabricator can offer its own style, design and colour options for the residential door, therefore it

is difficult for Liniar to advise consumers of the options available.

Accreditations













PAS24

Secured by Design

BS EN 12608

ISO 9001

BS EN 6375 CORGI Fenestration

Options

Frame

Standard

Sculptured (curved)

<u>or</u>

<u>or</u>

EnergyPlus

Chamfered (bevelled)

Glazing

28mm Double Glazing

or

36mm/40mm Triple Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed
1.3W/m ² K	1.0W/m ² K



Thresholds

Frame Only	Frame and Cill	Part M Low Threshold	Low Threshold	Low Threshold and Half Tray	Low Threshold and Full Tray	Rebated Aluminiumum Threshold	Rebated Aluminiumum Threshold and HalfTray
57mm	87mm	15mm	30mm	33mm	33mm	40mm	43mm

Additional items

Georgian bars



Utilises both Standard and EnergyPlus profiles = outer frame matches windows.



Co-extruded patented bubble gasket
= no need to clean corners, with 8mm
overlap in/out



Range of threshold options inc. Part M low threshold = greater customer choice.



Uses standard Liniar beading = reduces overall stockholding.



Will accommodate most hardware = wider choice of suppliers.



Less steel thanks to patented screw retainer.

· Installer selling points



Wide variety of styles and options from fabricators = customer choice.



Simple beading system = easy to glaze.



Range of threshold options inc. Part M low threshold = greater customer choice. 2

Unique glazing platforms = better drainage, offers added strength, fewer call backs



Both sculptured and chamfered options = matches Liniar windows.



Patented bubble gasket ensures weathertight performance.

3

8mm tolerance allows for easier fitting.



Part Q compliant = complies with building regulations for new build.

Consumer selling points



Thermally efficient = saving money on heating bills.



Patented bubble gasket = no draughts or leaks.



PAS24, Secured By Design and Part Q compliant = highly secure.



100% lead-free = eco and family friendly.



Range of threshold options inc. Part M low threshold = family friendly.



Full profile guarantee = quality assurance and peace of mind.



British made = friendly, helpful and customer-focused.

Composite door

Accreditations









BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

Options

Frame (44mm slab):

Standard

Frame (48mm slab)

Standard

<u>or</u>

EnergyPlus

Sculptured (curved)

Chamfered (bevelled)

Sculptured (curved)

Chamfered (bevelled)



44mm slab

67mm

Proprietary thresholds available. Contact your preferred supplier.

48mm slab

Frame Only	Frame and Cill	Part M Low Threshold	Low Threshold		Low Threshold and Full Tray		Rebated Aluminiumum Threshold and HalfTray
57mm	87mm	15mm	30mm	33mm	33mm	40mm	43mm



Will fit most 44mm or 48mm composite door slabs = choice of suppliers.



44mm door slab can achieve fire door rating of FD30 = commercial use.



Same bead for fixed lights.



Will take side screen and top lights = with dedicated transom/mullion



Capable of PAS24 security accreditation with specific door slab = high security.



Range of threshold options including Part M low threshold for 48mm slab



Both sculptured and chamfered frame options for 48mm slab = fully matches.

Installer selling points



Wide variety of styles and options from Liniar fabricators nationwide = customer choice.



Designed with the installer in mind = straightforward to fit.



Both sculptured and chamfered frame options for 48mm slab = matches Liniar windows.

Consumer selling points



Highly secure = capable of PAS24 accreditation (with specific door slab).



Patented bubble gasket = no draughts or leaks.



Fully guaranteed = quality assurance and peace of mind.



Huge choice of colours and styles = personalised for each home.



100% lead-free = eco and family friendly.



Perfectly matching frame to other Liniar products = single point of guarantee.



Range of threshold options including Part M low threshold = family friendly.

EnergyPlus90 door

EnergyPlus90 doors utilise the same 9-chambered profile as the window system, making them fully Passive House compliant.

With the triple benefits of outstanding thermal efficiency, PAS24 security and fantastic noise reduction capability, EnergyPlus90 doors are available in chamfered 9 chamber profile.

EnergyPlus90 doors are fully compliant with Part Q building regulations – critical for the commercial and new build sectors - and as a result have achieved Secured by Desian accreditation.

Accreditations









BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

Options

Frame

EnergyPlus90

Chamfered (bevelled)

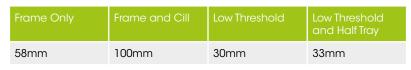
Glazing

48mm/56mm Triple Glazing

Door slab

68mm

Thresholds







90mm door to complement the EnergyPlus90 Passive House window system.



Will accommodate most hardware = wider choice of suppliers.



Capable of PAS24, Secured

By Design and Part Q

compliant.



Supplied ready made



Two threshold options available.



Co-extruded patented bubble gasket = no need to clean corners.

Installer selling points



Easy to install = fit in exactly the same way as Liniar 70mm system.



Cleans up without the need for solvents = less mess.

2

Two threshold options available.



Eco-friendly = enables installers to offer the highest thermal efficiency. 3

Unique glazing platforms = better drainage, offers added strength.



Matching products and marketing support = helps increase sales to consumers.

Consumer selling points



High thermal efficiency = saving money on bills



Patented bubble gasket = no draughts or leaks.



British made = friendly, helpful and customer-focused.



PAS24, Secured By Design and Part Q compliant = highly secure.



Noise reduction to 42 decibels - ideal for urban living.



100% lead-free = eco and family friendly.



Two threshold options available = family friendly.



Fully weather tested, surpassing all requirements.



Chamfered style for a contemporary appearance.

French door

Ensuring the maximum amount of natural light in a property, the fully sculptured and chamfered features of Liniar French doors provide a beautiful finish.

Offering a more traditional aesthetic, Liniar French doors come with the same high specification and colour choices as the window range. Available in either an 'open in' or 'open out' style to suit any living space, Liniar French doors provide a home with a stylish and secure entrance.

Accreditations













PAS24

Secured by Design

BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

Options

Frame

Standard

Sculptured (curved)

<u>or</u>

<u>or</u>

EnergyPlus

Chamfered (bevelled)

Glazing

28mm Double Glazing

<u>or</u>

36mm/40mm Triple Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed
1.3W/m ² K	1.0W/m ² K



Thresholds

Frame Only	Frame and Cill	Part M Low Threshold	Low Threshold	Low Threshold and Half Tray	Low Threshold and Full Tray		Rebated Aluminiumum Threshold and Cill
57mm	87mm	15mm	30mm	33mm	33mm	40mm	70mm



Uses door sections from standard Liniar range = no extra stockholding.



Will accommodate most hardware = wider choice of suppliers.



Utilises both 4 chamber and EnergyPlus profiles = matches window system.



Co-extruded patented bubble gasket = no need to clean corners.



Range of threshold options inc. Part M low threshold = greater customer choice.



Uses standard Liniar beading = reduces overall stockholding.

Installer selling points



Wide variety of styles and options from fabricators = customer choice.



Designed with the installer in mind = straightforward to fit.



Range of threshold options inc. Part M low threshold = greater customer choice.



Unique glazing platforms = better drainage, offers added strength.



Both sculptured and chamfered options
= matches Liniar windows.



8mm tolerance allows for easier fitting.



Part Q compliant = complies with building regulations for new build

Consumer selling points



Thermally efficient = saving money on heating bills.



Patented bubble gasket = no draughts or leaks.



British made = friendly, helpful and customer-focused.



PAS24, Secured By Design and Part Q compliant = highly secure



100% lead-free = eco and family friendly.



Range of threshold options inc. Part M low threshold = family friendly.



Full profile guarantee = quality assurance and peace of mind.

Patio door

Fitted with Liniar's revolutionary multi-wheeled 'air glide' system, the Liniar sliding patio door is perfectly balanced as it moves along its track.

Liniar's innovative patio door features a built-in decelerator and hidden 'crash stops' within the operating mechanism, so as not to detract from the slim lines of the door.

Liniar's patented ModLok™ modular locking mechanism is built in to the frame, delivering unparalleled strength combined with the highest levels of security, with optional PAS 24 accreditation

Accreditations











BS EN 12608

ISO 9001

BS EN 6375

PAS 24

CORGI Fenestration

Options

Frame

Standard

Sculptured (curved)

Glazing

28mm Double Glazing

or

28mm Triple Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed
1.2W/m ² K	1.0W/m ² K



Thresholds

Frame Only	Frame and Cill	Cill Mounted Threshold		Low Threshold with integral ramp
50mm	80mm (inc cill)	60mm	30mm	25mm



No internal reinforcement to fit = includes ModLok technology.



Available in bar length or in kit format from other Liniar fabricators.



Sculptured frame fully matches
Liniar windows.



Reinforcement and lock are part of same face plate = faster to fabricate.



Outer frame can be mechanically jointed if required.



Optional components to fabricate to PAS 24 security standards.



Available in 2, 3 and 4 pane options = more choice.



Less brush pile to fit, saving fabrication time.



8-wheel acetal roller up to 120kg per sash

Installer selling points



Centre lined keep and lock = easy fit on site



6 x anti-lift components for added security



Low threshold requires no trench excavation = less time consuming and messy.



Unique centre seal and continual weather seal.



PAS 24 security means the door meets

Part Q building regulations



Bespoke glazing platforms - better drainage, added strength and symmetrical appearance.

Consumer selling points ·



8-wheel acetal system
= offers a 'light as air'
gliding motion.



Thermally efficient = saves money on heating bills.



100% lead free = eco and family friendly.



Slim sightlines = less frame, more glass, lets in more light.



Range of threshold options including Part M threshold - family friendly.



Weatherproof, thanks to unique centre seal and continuous weather seal.



No unsightly crash stops thanks to built-in decelerator.



Patented bubble gasket = no draughts or leaks.



Unrivalled security
(with optional PAS 24 version)

Standard bi-fold door

Bi-fold doors are the perfect way to create space, let in fresh air and flood a room with natural daylight by being able to open up an entire wall.

Liniar offered the very first fully bespoke PVCu bi-fold doors to be engineered, designed and manufactured in the UK.

Liniar bi-fold doors offer excellent levels of energy efficiency, alongside superb security features and ar innovative low threshold option, making them family and wheelchair friendly.

Accreditations









BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

Options

Frame

Standard

Sculptured (curved)

Glazing

28mm Double Glazing

Lowest possible U-Values

Double Glazed

1.3W/m²K



Thresholds

Frame Only	Frame and Cill			Low Threshold and Full Tray
56mm	86mm	24mm	27mm	27mm



The original bespoke

PVCu bi-fold door = first on
the UK market.



Co-extruded patented bubble gasket
= no need to clean corners.



Can be fabricated as a bi-fold window, down to 750mm high.



Uses standard Liniar beading = reduces overall stockholding.



Continuous hardware development.



Bottom hung wheels = strong and supporting

· Installer selling points



Open in and open out options = wider choice of applications.



Full colour installation guide and video = fewer callbacks.



Simple beading system = easy to glaze.



Marketing support = helps increase sales to consumers.



Wide range of matching products = single point of guarantee.



Low threshold options = no large stepover trip hazard

Consumer selling points



Cost effective PVCu bi-fold door solution = matches PVCu windows.



Patented bubble gasket = no draughts or leaks.



From 2 to 4 panes, opening in or out = versatile range of options.



100% lead-free = eco and family friendly.



A modern take on a timber design = more thermally efficient.



Fully guaranteed = quality assurance and peace of mind.

ModLokTM bi-fold door

Liniar's ModLok™ bi-folding doors offer a totally unique option, thanks to the patented exoskeleton design giving them unparalleled strength, security and durability.

No other PVCu bi-folding door has been tested to over 127,000 full opening cycles; and with low U-values, PAS24 and Secured By Design accreditation, the Liniar ModLok^{IM} is in a class of its own

Liniar's ModLok™ technology earned the highly prestigious accolade of a Queen's Award for Enterprise in Innovation in 2017.

Accreditations















PAS24

Secured by Design

Queens' Award BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

· Options

Frame

EnergyPlus

Sculptured (curved)

<u>or</u>

Chamfered (bevelled)

Glazing

28mm Double Glazing

or

36mm/40mm Triple Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed
1.3W/m ² K	1.0W/m ² K



Thresholds

Frame Only	Frame and Cill			Low Threshold and Full Tray
62mm	92mm	23.5mm	26.5mm	26.5mm



Queen's Award winning product = demonstrates uniqueness of product.



Bespoke designed hardware = compatibility assured.



Faster to fabricate - no internal steel reinforcement.



Uses standard PVCu machinery = no expensive additional outlay required.



Fully tested with all accreditations including cyclic testing.



5 threshold options including Part M low threshold.



Aluminium exoskeleton includes combined lock and reinforcement.



Wide range of colours from stock = shorter lead times.



Mechnical joint mouldings for easy fabrication.

Installer selling points



Queen's Award winning product.



Range of threshold options including Part M low threshold = greater choice.



Compatible with Liniar PVCu frame extensions = many will already have.



Patented aluminium exoskeletal structure.



Fully tested with all accreditations including cyclic testing.



Installation guide and video available = full installation support.



Can be offered as cost-effective alternative to aluminium.



Captive top track and bottom rolling system - avoids mis-handling.



Matching products and marketing support = helps increase sales to consumers.

Consumer selling points



Queen's Award winning product = demonstrates uniqueness of product.



Supreme strength and stability = a cost alternative to aluminium bi-folds.



Choice of thresholds, including weather rated low threshold.



Spans greater than other PVCu bi-folds; up to 6m wide overall.



Symmetrical sightlines and a flush finish = attractive appearance.



Triple glazing options available = higher acoustic values.



Thermally efficient = saving money on heating bills.



PAS24 and Secured By Design accredited = highest degree of security.



Fully guaranteed = quality assured for peace of mind.

Alumina system

Liniar's Design & Development team were given the challenge to create a thermally efficient aluminium door with the same sculptured profile as the window system and the option to be foiled for a perfect match.

Residential door

The true aluminium make-up of Alumina is perfect when fabricated as a stand-alone residential door, complementing the style of the Liniar PVCu flush sash system.

Ideal for commercial or heavy duty applications, Alumina offers added strength and security.

As with all Alumina products, residential doors can be supplied with almost any powder coated RAL finish, or foiled with one of Liniar's realistic factory fitted woodgrain foils.

Residential doors are available with 28mm double or 36/40mm triple glazing, offering U-values as low as 1.2W/m²K.

French door

Alumina French doors offer an alternative to PVCu for wider apertures with panes able to span up to 1.2m wide. The thermal polyamide lock, thermal insert and triple glazing option enable Alumina doors to reach U-values as low as 1.2m²K whilst meeting PAS24 and Secured by Design requirements making all Alumina doors Part Q compliant.

All Alumina doors are offered with a number of threshold options including a low threshold, which can be made to Part M access regulations and is fully weather tested. With fully sculptured beads, Alumina French doors can be foiled to match Liniar's PVCu flush sash window system – or order with any RAL powder coated finish.

Bi-Fold door

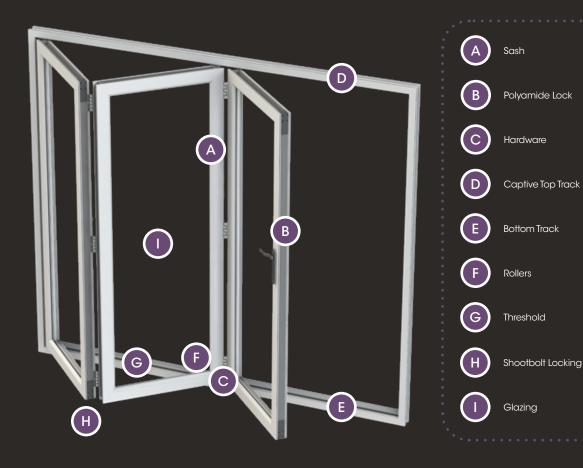
The jewel in the crown of the Alumina range, fully aluminium bi-folding doors provide the means to open up an entire wall of a building and give a cutting edge appearance to commercial developments.

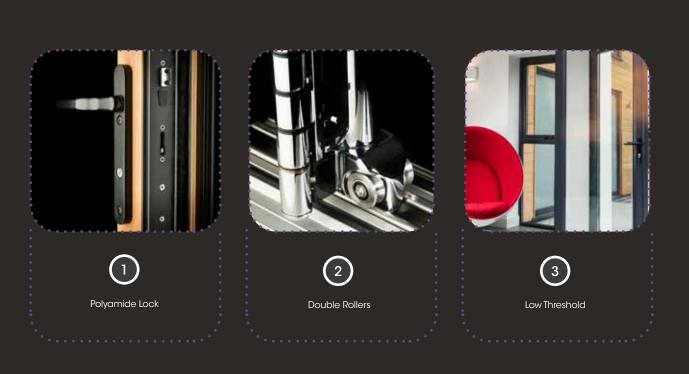
With the ability to span up to 7 panes wide, with a total width of 8.5m, Alumina bi-folds have a sash span of 1.2m and a sash height of 2.5m. With a bespoke bottom-rolling 4-wheeled system, Alumina doors offer a heavy duty solution for a variety of applications.

Alumina bi-fold can be supplied with any powder coated RAL finish, or foiled with one of Liniar's realistic, factory fitted woodgrain foiled to match the PVCu window suite.



Main Alumina door components





Alumina doors

Alumina by Liniar is the first thermally efficient aluminium door designed to match a PVCu window system, with sculptured lines and an optional 'warm touch' foiled exterior.

The system breaks new ground with superb strength and high security, plus Alumina doors can be manufactured using standard aluminium machinery.

Able to span 1.2 metres wide per sash and 2.5 metres high, Alumina benefits from an innovative thermal lock that not only provides superb strength but contributes to impressively low U-values.

Accreditations













PAS24

Secured by Design

BS EN 12608

ISO 9001

BS EN 6375

CORGI Fenestration

· Options

Bi-Fold Door - 2 to 7 panes

 \bigcirc

French Door

10

Residential Door

Glazing

28mm Double Glazing

OI

36mm/40mm Triple Glazing

Lowest possible U-Values

Double Glazed	Triple Glazed
1.5W/m²K	1.3W/m²K



Thresholds

Frame Only	Frame and Cill	Low Threshold	Low Threshold and Half Tray	Low Threshold and Full Tray
62mm	92mm	23.5mm	26.5mm	26.5mm



Alumina can be foiled to match PVCu windows.



All Liniar fabricators can offer Alumina as part of their range.



Foiled cills, low thresholds and tray interchangeable with ModLokTM bi-fold



Deal direct with Liniar = no aluminium systems houses.



Liniar fabricators can apply to fabricate

Alumina in-house.



Compatible with Liniar PVCu frame extensions = lower stockholding.



Alumina comes with bespoke hardware.



Concealed drainage = eliminates the need for face drain caps.



Fully guaranteed = quality assured for peace of mind.

Installer selling points



Foiled Alumina come with matching PVCu beads.



Range of threshold options inc. Part M low threshold = greater customer choice.



Compatible with Liniar PVCu frame extensions - many will have on their van.

2

Offer a fully matching, sculptured and foiled bi-fold.



Concealed drainage = eliminates the need for face drain caps.



Available fully built or in kit format = ideal when access is restricted.

3

Single Liniar guarantee covering the full range.



Captive top track = easier to install and helps to prevent mis-handling.



Installation guide and video available = full installation support.

Consumer selling points



Sashes up to 1.2m wide and 2.5m high.



Includes patented thermal lock = keeps more heat inside the property.



Choice of thresholds, inc. weather rated low threshold with no trench excavation.



Available in a range of foiled options - matching windows.



PAS24 and Secured By Design accredited
= highest degree of security.



Triple glazing = higher acoustic values and more thermally efficient.



More cost effective than full aluminium installation.



Sculptured style and flush lines = more attractive appearance.



Fully guaranteed = quality assured for peace of mind.

Conservatory roof system

The Liniar conservatory roof matches perfectly with its range of PVCu windows and doors - resulting in one of the most thermally efficient conservatories in the LIK

A touch of colour

Liniar's revolutionary EnergyPlus conservatory roof is available in a stunning range of colours from stock and is designed to match perfectly with the rest of the Liniar window and door ranges.

Designed for today

Our unique EnergyPlus twin-walled top caps keep more of the warmth inside the building, making it less expensive to heat. Liniar's carefully engineered roof design results in no holes or gaps for water ingress.

Adding extra space

From lean-to sunrooms to large Victorian garden rooms, each Liniar conservatory roof is designed and built to your exact specifications – in as little as five days from quote acceptance.

Roof kits

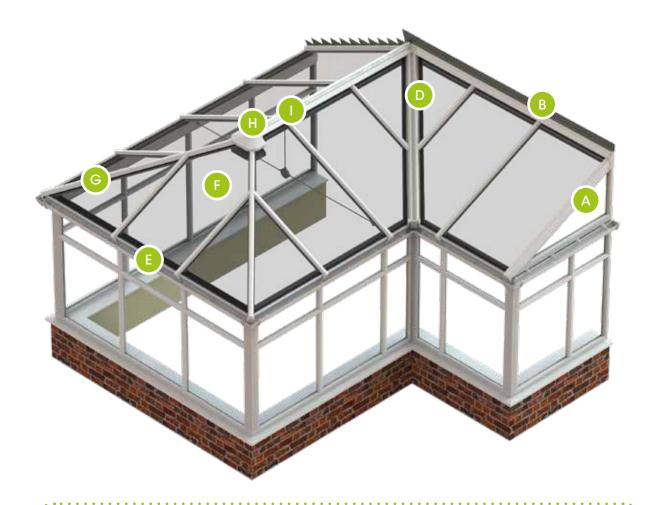
The Liniar conservatory roof is available to installer in kit format, making it simple to assemble, fit and adjust on-site.

Why Choose Liniar Conservatories?

- No more glazing slip thanks to Liniar's unique patented valley glazing stop
- EnergyPlus twin-walled top caps for greater
 thermal effciency and an alternative to expensive
 aluminium
- Lantern roofs also available
- Pre-closed permanent memory foam, with a pre-applied primary seal and a ridge cap which attaches to leave no screw holes for water incress
- If you can design it, Liniar can make it! All roofs are made bespoke to your requirements.
- The Liniar roof is easy to fit with tolerance engineered in, as well as being fully on-site adjustable for reduced installation time
- Concealed tie bar fixings are available, as wel as tie wire options, for a more contemporary appearance.







- A Wall/End Bar
- Eaves Beam

Ridge Blanking Cap

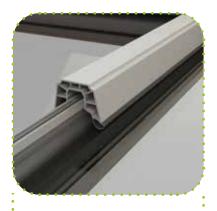
- B Wallplate/Half Ridge
- F Glazing/Polycarbonate
- J Box Gutter

- Roof Bar/EP Top Cap
- G Hip Bar

K Glazing Stop/Retainer

D Valley

Cresting/Finial



C

EnergyPlus Top Caps



Deep Flow Box Gutter



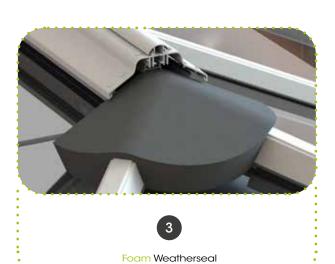
K

Glazing Stop











Conservatory roof

Liniar's EnergyPlus conservatory roof is available in a stunning range of styles and colours and is designed to match perfectly with the rest of the Liniar window and door ranges.

Accreditations







BS EN 12608

ISO 9001

CORGI Fenestration

Options

Edwardian



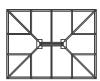
Also known as Georgian, this style is square or rectangular with a high, sloping roof, allowing you to maximise your living space.

Lean-To



This style offers a simple, cost effective solution for bungalows and porches, allowing maximum space in an economical style, and is often a popular choice.

Double Hipped



With a pitched roof on both sides, this option strikes the balance between style and a seamless fit with most properties.

Gable



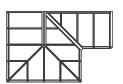
Fully glazed right up to the apex, this style also has a square or rectangular footprint. Offering a stunning impact, this is often called the 'sun burst'.

Victorian



One of the most popular styles of conservatory, the Victorian consists of a bay front, a steeply pitched roof and ornate ridge details – with three or five facets.

Combination (P Shape)



Offering the ultimate in flexibility, this style combines one or more styles to create the perfect shape for homes and gardens.

* Available in kit format from Liniar

Installer selling points



Patented Glazing Stop = glazing retainer avoids 100% of glass slippage.



Thermal strip on box gutter = reduces call-backs for condensation issues.



Marketing resources available = help increase sales to consumers.



EnergyPlus twin-walled top caps = supreme strength and easier to fit.



Patented memory foam seals included = offers weathertight finish.



Available with a number of glazing options



Comes in a kit with everything the installer needs = easier to manage on site.



Full colour installation guide supplied with every roof kit = faster to fit.

Consumer selling points



Thermally efficient EnergyPlus top caps = saving money on bills.



Every component is foiled to match for a seamless appearance



Full profile guarantee = quality assured for peace of mind.



Fully matches Liniar windows, doors and outdoor ranges = single point of guarantee.



Contemporary ridge cover and foiled end caps = attractive appearance.



British made = friendly, helpful and customer-focused.



Can be made to any shape or style = designed bespoke for your property.



100% lead-free = eco and family friendly.



Wide choice of colours from stock = faster lead times.



The stunning lantern style roof from Liniar, Elevate features slim sightlines and a sleek transition of roof bars, allowing in more light for an unobstructed view.

Elevate is available in kit format to your bespoke size and specification, arriving with everything needed for a swift installation. Liniar's EnergyPlus twin walled top caps are included with every Elevate kit, ensuring a strong and robust fit, and delivering the ultimate in thermal efficiency.

Accreditations







BS EN 12608

ISO 9001

ISO 140001

CORGI Fenestration

Options

Transom Bars

Square shape



Made to order and available in kit format from Liniar, in just 5 working days.

Installer selling points



Arrives in kit format with everything needed on site.



36 colour combinations delivered in just 5 working days.



Can be assembled and installed in less than 30 minutes.



Thermal strip on box gutter = reduces call-backs for condensation issues.



Includes weather dam and
EnergyPlus top caps for superb
thermal efficiency.



Fewer transom bars for a sleek appearance and to let in more light.



Choose glazed or unglazed for the ultimate in flexibility.



Patented Glazing Stop prevents glass slippage.



Covered by the Liniar 10 year guarantee.

Consumer selling points



A stunning, sleek addition to your home, allowing in light with unobstructed views.



Up to 36 colour combinations to match the rest of your home.



Available up to 2.4m x 5.4m for even the largest orangery or extension.



Superb thermal efficiency helps reduce heating costs.



Foiled components ensure a fully matching, beautiful finish.



Strong, robust and secure.



Totally weatherproof, thanks to Liniar's patented weather dam.

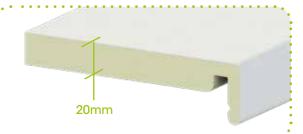


Matches Liniar windows, doors and outdoor ranges = single point of guarantee.



Made in Britain and covered by Liniar's 10 year guarantee.

Roofline range



Replacement Fascia Board

Available in 150mm, 175mm, 200mm, 225mm, 250mm, 300mm, 354mm and 454mm.



Capping Fascia Board

Available in 150mm, 175mm, 200mm, 225mm, 250mm, 300mm, 354mm and 454mm.



Flat Board

Available in 150mm, 175mm, 200mm, 225mm, 250mm, 300mm, 354mm and 454mm.



Soffit Board

Available in 100mm and 300mm.

Soffit Trims

- Felt Roof Trim
- In-Line Joint Trim
- H Joint Trim
- Gable Finial
- J Starter Trim
- 135° Corner Internal
- F Wall Trim

- 135° Corner External
- Soffit Ventilator
- 90° Corner Internal

- 2 Part Base & Cap
- 90° Corner External



Enables fabricators to offer a fully matching Liniar range to installers.



Single point of purchase and guarantee.



Delivered alongside window and door profiles = ease of booking in.

Installer selling points



Fascia boards 20mm thick instead of customary 16mm-18mm = greater strength.



Longer return legs and extra cover on mouldings = faster installation.



Pre-marked protective tape = easy to find centre line and make straight cuts.

4

Fully matching with other Liniar products = single point of guarantee.

Consumer selling points



Perfect colour match to Liniar range = beautiful appearance.



Low maintenance when compared to timber roofline products.



Made from the same 100% lead free PVCu as Liniar's other products.



Single point of guarantee with one provider.



Made in Britain at Liniar's high tech

Derbyshire facililty.

Building products

Liniar Approved installation products have been carefully selected for window installers, builders and contractors to complement the rest of the of the Liniar range.

Silicone sealants, decorator's caulk and expanding foam has been specifically chosen from the UK's leading experts to meet the exacting needs of installers

Cleaners and adhesives provide high quality at a cost effective price, while our fixings and packers come in handy packs and a variety of sizes.

Trims



D Mould

24mm



Cloak Foam Trim

18mm and 28mm



Quadrant Trim

13.5mm and 18.5mm



Chamfered Foam Bead

18mm



Architrave

45mm, 65mm and 95mm

Adjustable Angle

50mm

Adjustable Angle

75mm

Installation Supplies

- Glass Cleaner
- PVCu Solvent Cleaner
- PVCu Cream Cleaner
- Superglue

- Superglue Activator
- Fixings
- Packers
- Accessories





Enables fabricators to offer a fully matching Liniar range to installers.



Single point of purchase and guarantee.



Delivered alongside window and door profiles = ease of booking in.

Installer selling points



Full range of trims, roofline and silicones = offer a perfect colour match.



Designed with installers in mind = high quality and easy to fit.



Collect at the same time as your Liniar windows and doors.

4

Internal foam trims and architraves mean you can finish the job to perfection.

Consumer selling points



Perfect colour match to Liniar range = beautiful appearance.



Single point of guarantee with one provider.



Low maintenance when compared to timber roofline products.



Made in Britain at Liniar's high tech Derbyshire facililty.



Made from the same 100% lead free PVCu as Liniar's other products.

Cladding

New for 2019 – Liniar shiplap cladding provides the ultimate solution for timber-style cladding without the ongoing maintenance.

Liniar's 150mm interlocking boards include a 'secret' fixing design for a high quality finish, together with a wide range of jointing options and finishing trims – al

In four colour options from stock, special colours are also available for large quantity orders on a longer lead time.



Cladding Board



H Joint Trim



Edge Trim



Two Part Corner Trim





Enables fabricators to offer a fully matching solution with the Liniar range



Single point of purchase and guarantee



Easy ordering and delivery – with window and door profiles

· Installer selling points



Secret fixing design provides a high quality finish effortlessly



150mm interlocking boards = easy installation



Fully matching with the Liniar range – single point of guarantee

Consumer selling points



Fully matching Liniar windows and doors = elegant finish



Made in Britain in the heart of the East Midlands



Low maintenance compared to timber cladding



Single point of guarantee from one provider = no hassles



Made from 100% lead-free PVC – from a sustainable manufacturer

Outdoor range

Liniar's outdoor range incorporates innovative decking kits, fencing systems and plastic pilina.

Decking Kits

Liniar's decking systems are available in bar length or as a bespoke cut-to-size kit.

Well renowned for style, high quality, strength, low maintenance and durability, there's a whole host of additional benefits to Liniar deckina.

Original 225mm and new SwitchBoard deckboards are anti-slip and Class 1Y Fire rated for safety. Liniar's galvanised steel sub-frames, unparalleled in the

The only fully sculptured balustrade system on the market also comes pre-fabricated, meaning no more fiddly cutting and fitting of handrails with pickets

Deckboards are supplied cut to length for hasslefree installation. Gates are delivered complete and modular steps come pre-fabricated – all saving installers an incredible amount of time on site.

Kits are supplied with all necessary fixings and required hardware to put the deck together.

As well as saving time on installation, all of these benefits remove the problem of finding sufficient space on site for cutting and assembly, keeping mess and noise to a minimum. And with components available from stock, waiting times are kept low, with standard deck kits being delivered in 7 - 14 working days.

SwitchBoard decking is dual-sided and carries a full 10-year warranty.*

Fencing

When it comes to fencing, PVCu may not be the obvious choice for anyone used to more traditional materials, such as concrete and timber. But, as a growing number of landscapers, commercial developers and homeowners are discovering, it's now the smart choice

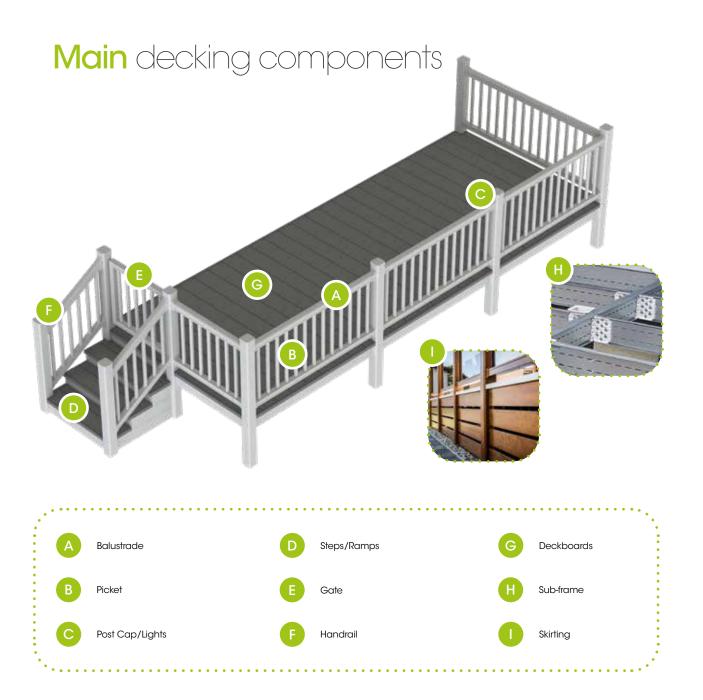
Advances in technology over recent years have made fencing manufactured from PVCu a real alternative to more traditional materials – and for good reason. Light to carry, easy to install, weatherproof and virtually maintenance free, lead-free PVCu fencing from Liniar beats the competition hands down. You may be forgiven for thinking plastic fencing is too flexible to use as a border. However, the internal chambers within each panel of Liniar fencing, together with steel reinforcement in the posts, give it unparalleled strength, built to stand up to even the strongest winds and storms. Available in 3 finishes - classic, composite or woodgrain foiled - and 10 colour options.

Piling

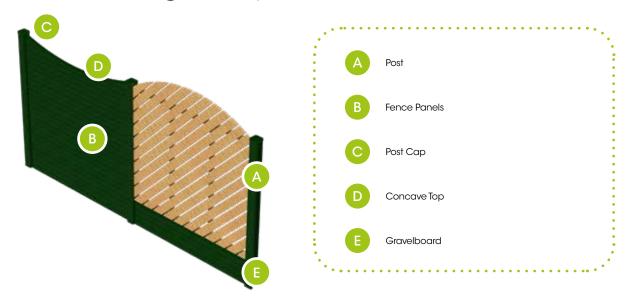
Plastic piling is available ex-stock in a variety of lengths and systems, including the traditional standard pile shape that can be configured as 'Z-ribbed' (for light use) or 'box' (for heavier use), and the facility for tying back and creating 90° corners. Liniar has also developed its own unique Log Pile, a system of interlocking tubes forming an attractive border and retention solution in one.

*See www.liniar.co.uk/warranties for details





Main fencing components



225mm Decking

Liniar's range of decking is the only one that's designed, modelled, tooled, manufactured, foiled and stocked at its 400,000ft² UK facility.

With anti-slip deckboards on a strong, robust galvanised steel sub-frame and featuring the only fully sculptured balustrade system, Liniar decking is available with a wide choice of accessories.

Liniar decking is also now available in kit format and delivered to site part assembled and cut to size to save installers precious time.

Accreditations



BS 476-7 Surface Fire Safety



BS EN 7976 Anti-slip



BS EN 660-2 Anti-wear



BS EN 24346 Resilience

Accessibility



Steps



Ramps



Gates



Glass picket

or

Glass panels

Sculptured picket



Ranch style skirting
or
150mm v.skirting
or
300mm v.skirting

Lights



Globe Light



Decking installer selling points



Full training from Liniar = installers shown how to fabricate decks on site.



Made in Britain = designed, tooled, manufactured, foiled and stocked at Liniar's HQ.



Full range of matching accessories available = wide choice for installers.



Comes in a kit with everything the installer needs = easy to manage.



Steps and gates supplied pre-fabricated = simple to assemble.



Full assembly instructions provided with each kit = quick to install.



Pre-cut galvanised steel sub-frame = less mess and noise on site.



Unique 'nogging' to fix sub-frame together = save up to 40% install time.



Cut to your specifications = less time on-site



Tongue and groove design with concealed fixings



Wide choice of colours and styles available from stock = short lead times.



Delivered nationwide on Liniar's own transport = where and when you need it.

Consumer selling points



Tongue and groove design, wood patterned deckboards won't rust, rot, warp or splinter with concealed fixings.



Low maintenance system = and never needs staining.



Wood patterned deckboards that are slip and wear resistant.



Fully sculptured balustrade system = attractive and stylish finish.



Factory foiled balustrades perfectly complement other Liniar products.



Decking load tested to in excess of $500 \text{ kg/m}^2 = \text{strong and robust.}$



100% lead free and made from part-recycled PVCu = eco friendly.



Accredited with Class 1Y Fire Safety = offers more resistance to fire.

Switch Board 150mm Decking

Accreditations



BS 476-7 Surface Fire Safety



BS EN 7976 Anti-slip



BS EN 660-2 Anti-wear



BS EN 24346 Resilience







The 'Quick Clip' fixing solution has been designed for a swift, easy installation with no visible screws.

Full range of matching end caps and trims available.







SwitchBoard End Cap

SwitchBoard







Twin Wall U Channel Trim



Aluminium Angle Trim

SwitchBoard installer selling points · ·



Full training from Liniar = installers shown how to fabricate decks on site.



Dual-sided deckboards with 10 Year Colour and Performance Warranty*



Innovative 'Quick Clip' fixings act as spacers



Comes in a kit with everything the installer needs = easy to manage.



Steps and gates supplied pre-fabricated = simple to assemble.



Full assembly instructions provided with each kit = quick to install.



Pre-cut galvanised steel sub-frame = less mess and noise on site.



Unique 'nogging' to fix sub-frame together = save up to 40% install time.



Cut to your specifications
= less time on-site



Choice of 5 nature-inspired colours



Made in Britain = designed, tooled, manufactured, foiled and stocked at Liniar's HQ.



Delivered nationwide on Liniar's own transport = where and when you need it.

Consumer selling points



Attractive decking solution with a choice of two finishes.



Low maintenance system = won't rust, rot or warp and never needs staining.



Anti-slip and wear resistant on both sides.



Fully sculptured balustrade system = attractive and stylish finish.



Factory foiled balustrades perfectly complement other Liniar products.



Strong and robust - decking load tested to in excess of 500 kg/m².



100% lead free and made from fully recyclable composite PVCu.



Accredited with Class 1Y Fire Safety = offers resistance to fire.



Barefoot-friendly no splinters!

^{*} Visit www.liniar.co.uk/warranties for details

Fencing

Liniar's fencing range is an attractive alternative to more traditional products - it can be installed in exactly the same way but offers a more flexible and durable solution

At a fraction of the weight of concrete, it's much easier to erect – and unlike timber it doesn't rot or require regular maintenance. Fencing panels are easily created using several gravelboards slotted into place. The system is fully compatible with existing concrete or timber posts for ultimate versatility.

Options

Lights





Convex Top



Concave Top







Installer selling points



More lightweight than timber or concrete = easy to carry to site and lift.



System comprises posts and panels, which slot together to make up a full fence.



Installed in exactly the same way as traditional systems = no specialist equipment.



Posts are reinforced with steel = robust, stable finish.



Fully interchangeable with timber or concrete systems = versatile.



Designed, tooled, manufactured, foiled and stocked at Liniar's HQ.

Consumer selling points



Durable = will not crack, break, corrode, splinter, rot or warp.



Available in 10 colours and finishes = attractive, realistic appearance.



Can be interchanged with Liniar balustrade to add a beautiful finish.



Maintenance free = never needs sanding, staining or painting.



Decorative arched tops available
= attractive finish.



Matching gates are available if required.



Strength tested = strong enough to withstand storm force winds.



Ranch style fencing with horizontal bars also available.

Balustrade Fencing

An ideal alternative to picket fencing, Liniar's balustrade fencing provides a strong, attractive boundary for domestic gardens, holiday and theme parks and sporting facilities.

Liniar's balustrade fencing offers vertical pickets to replicate the appearance of picket fencing but is available in a range of 6 colours, providing more versatility than the standard white picket fencing.

Additionally, the Balustrade Fencing system from Linia is maintenance free and is guaranteed not to rot or rust – making it extremely durable.







Installer selling points



Covered by Liniar's 10 Year Guarantee



Tested in-house for robustness, durability and quality.



Provided in pre-fabricated panels for easy installation



Ideal for communal areas like playgrounds and parks.



Available to match Liniar balustrades in a choice of six colours.

Consumer selling points



Replicates the appearance of picket fencing.



Liniar balustrade fencing has been designed not to crack, break or corrode and there's no risk of splinters.



Maintenance-free = no need for sanding, painting or staining.



An attractive option for permanent applications such as gardens and sports fields.



100% weatherproof -Liniar balustrade fencing doesn't rot or rust.



Choose from standard post caps or opt for globe or LED lighting.

Piling

Liniar manufacture a wide range of piling styles dependent on strength, ease of installation and type of appearance required.

We have the capability to manufacture plastic piling in a wide range of lengths, direct from our UK factory, to be used in a number of applications across different industry sectors.

Liniar's plastic piling has a number of benefits over traditional steel, timber or concrete piling; mainly cost, durability, ease of handling and environment.

Options



Full Pan Pile

- Bank retention and restoration
- Temporary civil engineering works



Log Pile

- Landscaping and bank retention
- Where a soft engineering appearance is required.



Standard Pile Z Ribbed

- Bank retention
- Floodwalls



Standard Pile Box Format

- Water and bank retention
- Higher retained heights



Trench Shoring

Temporary trench shoring during engineering works

Full engineering values are available at: www.liniar.co.uk/plastic-piling

Accessories

- Capping Strip
- Corner Pile
- 2-Way Connector Pile
- 3-Way Connector Pile

- Mini Pile
- Log Pile Cap
- · Log Pile Driving Cap
- Sheet Pile Driving Cap

· Installer selling points



Log pile is ideal for soil and water retention challenges = attractive finish.



Additional offering for window or decking installers = more sales opportunities.



Lighter than steel = easier to transport and handle.



Can be easily cut or bored = no risk of sparking.



Can be installed by hand = no expensive machinery to hire.



Full engineering values available on the Liniar website.

Consumer selling points ····



Maintenance free retention solution for landscaping.



Will not rot or rust = long term solution.



Carries a Class 1Y Fire Rating.



Manufactured from recycled plastic
= eco-friendly.



Resistant to salt water, rodent and marine borer attack.



Curved walls and corners no problem.

Contact

Flamstead House, Denby Hall Business Park,

Denby, Derbyshire DE5 8JX

Telephone: +44 (0)1332 883900

Fax: +44 (0) 1332 883901 Email: sales@liniar.co.uk Technical Support - technical@liniar.co.uk

Design & Development - design@liniar.co.uk

Commercial Development - commercial@liniar.co.uk

Marketing - marketing@liniar.co.uk

Alumina - alumina@liniar.co.uk

Roofs - roofs @liniar.co.uk

Decking - decking@liniar.co.uk

LiniarConnect - connect@liniar.co.uk

Online

www.liniar.co.uk

Useful links:

Specifier's centre: www.liniar.co.uk/specifiers

WER calculator: www.liniar.co.uk/wer-calculator

Hardware: www.liniar.co.uk/hardware

LiniarConnect: www.liniar.co.uk/liniarconnect

Find a Stockist: www.liniar.co.uk/stockists

Warranties: www.liniar.co.uk/warranties



Social Media - follow us!



LiniarUK



Liniar



LiniarProfiles



LiniarUK



LiniarUK



LiniarUK

