



Commercial innovation

For the new build sector



The Liniar range is designed by award-winning extrusion company HL Plastics, based in the heart of Derbyshire. Having grown significantly since the launch of Liniar windows in 2008, the company retains its friendly approach and flat structure. This means it is able to respond to customer demands quickly and effectively, giving the brand a reputation of excellence within the industry.



At a glance...

- The Liniar brand belongs to HL Plastics Ltd, part of the Flamstead Holdings group
- £70 million turnover (2016)
- Flamstead Holdings listed in "1000 companies to inspire Britain"
- > 500 employees
- 12% market share of PVCu profiles in the UK
- National Fenestration Awards Systems Company of the Year
- Derby Telegraph Company of the Year
- Winner of the Lloyds Bank Growing Business Award - mid-sized company
- Capital investment of £5m per annum
- Awarded the Queen's Award for Enterprise in the innovation category for the ModLok™ bi-fold.



The Liniar chamfered system is launched

2008



The Liniar sculptured System is launched

2009



The first PVCu bespoke bi-fold door is introduced. The EnergyPlus profile is also launched

2010



The conservatory roof system is launched

2011



60,000ft² warehouse is built
ModLok™ patio is launched

2012



New lamination plant is opened, along with 60,000 tonne mixing plant

2013



ModLok™ bi-fold is launched. Roof kits and Flush Sash system are all introduced

2014



178,000ft² warehouse is built
Unique aluminium bi-fold, Alumina, is launched

2016



PassivHaus compliant 90mm system - EnergyPlus90, is launched

2017



Fully reversible window is launched, along with Elevate lantern style roof

2018



The UK's first double rebated flush system, Resurgence, is launched

2019

Liniar now occupies more than 400,000ft² of purpose built facilities.



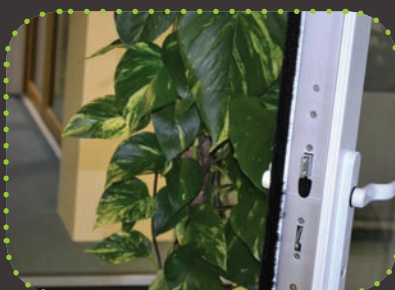
Safe and Secure

High security multi-point locking, achieving PAS:24 and Secured by Design means Liniar products meet Part Q.



Energy Efficient

With unique multi-chambered PVCu profile, Liniar windows can achieve the very latest A++ energy ratings.



Fully tested

Liniar products are put through exhaustive testing processes to ensure they are robust, durable and built to last.



Eco-friendly

Each PVCu product in the Liniar range is made from energy efficient, recyclable PVCu, making it a sustainable choice.



Made in Britain

The Liniar range is designed, tooled and extruded at an award-winning, purpose-built, state-of-the-art factory.



Low maintenance

Liniar products won't rot, rust, or require painting - just an occasional clean with warm soapy water!



Thermally Efficient

Multiple chambers inside window profiles, allows them to trap air and create a thermal barrier.

Add double or triple glazing to a PVCu frame, and U-values as low as 0.8 W/m²K can be achieved. PVCu outperforms any other material, with 10 times more PVCu windows achieving an 'A' rating compared to the nearest alternative.



Attractive

With a wide range of woodgrain effects and colours, as well as slim sightlines, PVCu windows can be as aesthetically pleasing as their timber or aluminium counterparts.

Advanced designs mean that sashes can sit flush in the frame, mirroring a pre-1932 timber frame – ideal for new builds to offer a sleek, contemporary appearance.



Weather proof

PVCu windows are ideal for the damp British weather. The frames will not swell or rot, and co-extruded gaskets provide excellent resistance to air and water.

Also, with PVCu, the gaskets are welded together as part of the manufacturing process, providing a continuous seal all the way round and eliminating draughts for longer.



Durable

PVCu windows have an expected life span of up to 35 years. Frames will not rot, corrode, warp or split, and special additives make them tough enough to suit European requirements.

In addition, the lightweight nature of a PVCu frame makes it easier to handle and install, reducing time on site for fitters and contractors.



Low maintenance

With PVCu, the ongoing maintenance consists of a wipe down with warm soapy water, making them simpler and more cost effective to look after.

Woodgrain or foiled windows with minor scratches can be repaired using a RAL-matched pen. Contrast this with timber windows – they need treating or painting on a regular basis.



Benefit vs. cost

There are three distinct areas where installing PVCu windows saves on cost and adds benefit:

- Lower purchase price and installation costs
- Higher energy savings over the life of the windows, and
- Lower maintenance costs.

21st century windows for 21st century developments



The Liniar range is designed to meet the demanding requirements of today's house building market. Reducing installation time whilst increasing energy efficiency, the lead-free Liniar PVCu window system continues to lead the way – surpassing legislative requirements and building regulations well in advance of due dates.

British Made

Liniar's 100% lead-free PVCu profile is made in the heart of the UK. Its award-winning extrusion facility in Derbyshire boasts the largest mixing plant in Europe and a 178,000ft² warehouse also houses a state-of-the-art showroom. Continued investment in the factory, research and development keeps Liniar at the forefront of innovation.



Thermally efficient

Whether double or triple glazed, Liniar windows outperform other leading brands in the UK, thanks to its innovative multi-chambered profile design.

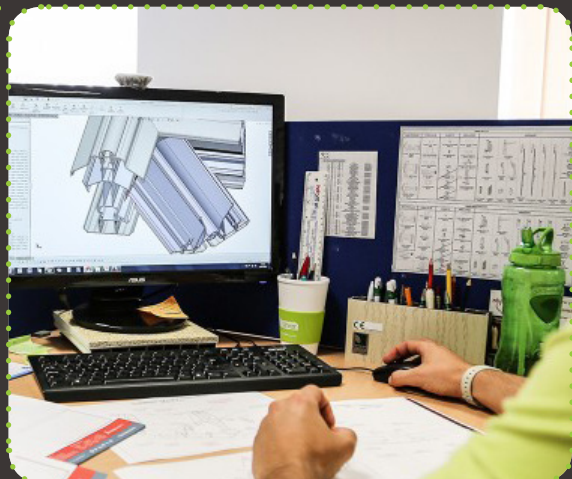
The Liniar EnergyPlus window can achieve an incredible U-value of 0.8 W/m²K when manufactured with triple glazing - achieving Passivhaus standard and creating a carbon neutral dwelling.



Research and development

The team's knowledge and experience have ensured they designed out the challenges and pitfalls that earlier window systems experienced.

Liniar's patented co-extruded bubble gasket, glazing platforms and screw retainer combine to make the Liniar range easier to fabricate as well as being more fitter-friendly – making it the cost-effective choice of system for large developments.



It's important to Liniar to prove its products are backed by the highest standards, and an ongoing testing programme ensures that all systems remain fully compliant – often ahead of legislation.

Liniar products hold the following accreditations:

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





SBD

Secured by Design status is awarded to products designed with exceptional security features as their main priority. Liniar products that qualify to 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.



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.



PAS 24

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 BS6375.



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.



The Liniar range is available in a wide variety of colours and finishes.

The basic Liniar PVCu profile is available in not just white, but also cream, caramel, brown and black substrates to offer a personalised appearance*



– or why not change its appearance completely by choosing one of our authentic foil finishes? Liniar’s coloured and woodgrain effect foils are factory fitted at the production stage, so you can rest assured of a perfect finish.

Guaranteed for a minimum of 10 years, foiled PVCu is a low-maintenance alternative to timber as it won’t

rot or need repainting; all it requires is an occasional clean with soapy water.

Every Liniar product is made in a wide choice of stocked coloured foils, ensuring short lead times when your project is urgent.

If you’re not in a rush, you could select a completely bespoke colour and finish from the huge range available. You can even select the substrate colour and choose to have the foil applied on just the interior or exterior only if you prefer.

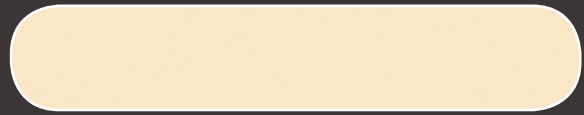
Please ask to see a Liniar foil swatch booklet to help you select the perfect colour choice.



Standard foils



White Foil



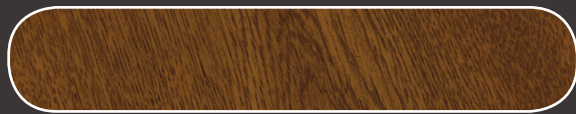
Cream Foil



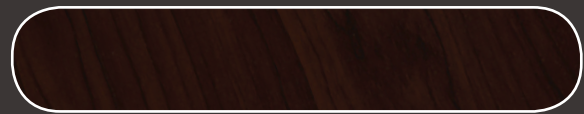
Chartwell Green



Irish Oak



Golden Oak



Rosewood



7016 Grey

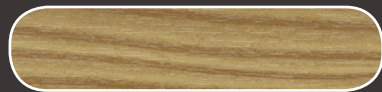


Black Brown

Special foils



Cedar



Oregon



Anteak



Sapeli



Mahogany



7038 Grey



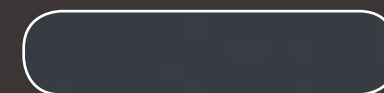
7155 Grey



7012 Grey



7015 Grey



7016 SM Grey



Blue



Green



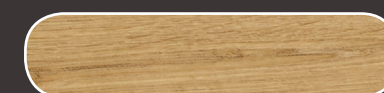
Red



Sheffield Oak Alpine



Sheffield Oak Concrete



Turner Oak Malt



Windows

Designed completely from scratch, the innovative Liniar window system features the latest in multi-chambered PVCu window technology. Unnecessary steel reinforcement has been removed with no loss in strength, resulting in a more cost-effective window which is easier to transport and handle on site.

With a multitude of patents including a unique co-extruded bubble gasket with zero air leakage, Liniar windows are available in a wide range of styles including standard casements, flush sash casements, tilt and turn, reversible, French and even bi-folding windows.

Offering sculptured or chamfered profiles, Liniar windows can be mechanically jointed and can achieve Windows Energy Ratings as high as A+40.



Residential and Composite Doors

Liniar fabricators offer a wide range of PVCu residential and composite doors, all with multi-chambered Liniar profiles for the frame. Sculptured or chamfered frames offer a perfect match to Liniar windows, with the same choice of colours from stock. Residential doors feature either 28mm double or 36mm/40mm triple glazing options, and are also available with patented ModLok™ exoskeleton for additional strength - whilst composite doors are available with 44mm or 49mm width door slabs.

A choice of thresholds complements each Liniar door, including Liniar's unique low threshold, which requires no trench excavation to install. Also available in a Part M compliant option, the aluminium low threshold measures just 15mm in height.



French Doors

Inward or outward opening, Liniar French doors are also available with a patented ModLok™ exoskeleton for additional strength and rigidity if required - ideal for exposed locations.

French doors can be ordered with a sculptured or chamfered finish, with 28mm double or 36mm triple glazing, and with either standard 4-chamber or EnergyPlus 6-chamber profiles - offering U-values as low as 1.0 W/m²K.

Six threshold options are available for Liniar French doors, from frame-only to a fully Part M compliant low threshold option.



Patio Doors

Liniar's unique 'air glide' patio was designed from scratch to take advantage of the very latest technology. In addition, it has been cycle tested by Liniar's in-house robot to provide assurance that it's built to last.

The Liniar patio features the patented ModLok™ exoskeletal system, a combined reinforcement and multi-point locking system that also prevents contraction and expansion. All external sliders feature multiple anti-lift properties and the doors have hidden crash stops for superior aesthetics. Most other patio doors operate on a four-wheel steel opening system. The Liniar patio features a unique 8-wheeled acetal roller system to provide stability, durability and a smooth, silent operation. Available with Liniar's optional Part M compliant low threshold.



PVCu Bi-Fold Doors

The ModLok™ technology featured in Liniar's PVCu bi-fold doors helped the product win a Queen's Award for Enterprise in the Innovation category in 2017.

With ModLok™, PVCu bi-folds have been totally re-engineered; an aluminium exoskeleton around each pane combines reinforcement with a multi-locking security system, also preventing contraction and expansion.

The heavy duty ModLok™ PVCu bi-fold has successfully passed PAS24 and Secured By Design security testing, as well as being cyclic tested to more than 10 times' British Standard without failing. Standard PVCu bi-folding doors are also available for a more cost-effective solution. Both types of PVCu bi-fold are available with a choice of thresholds, including Part M compliant low threshold.



Aluminium Bi-Fold Doors

Liniar's ModLok™ technology has now been adapted for use in our true aluminium range, with the same innovative locking mechanism and a unique thermal lock, giving Alumina bi-folding doors extraordinary thermal efficiency and U-values as low as 1.2 W/m²K.

Alumina by Liniar features sash sizes up to 1.2m wide and 2.5m high, making it ideal for commercial applications. Uniquely, Alumina doors can also be foiled in a range of colour options in addition to powder-coated RAL finishes.

With its sculptured profile matching Liniar's sleek lines, developments can now combine PVCu windows with fully matching aluminium doors.

For more information about Alumina products, please turn to Page 22.



Conservatories & Elevate Lantern Roofs

Liniar's conservatory range including the innovative Elevate lantern roof is designed to match perfectly with its range of windows and doors. One of the most thermally efficient ranges in the UK, Liniar's conservatory and Elevate lantern roofs come with patented features such as 'Glazing Stop' to prevent glazing slip and EnergyPlus twin-walled caps for superior strength. Made for fitters and fabricators in mind, Liniar's roof range comes in made to order kit format, with all the components ready to assemble, making it effortless and easy to install.

Arriving in up to 36 colour combinations and installation time as low as 30 minutes, Liniar's Elevate lantern roof is a favourite among installers and exceeds the demands of developers nationwide.



Roofline

Soffits, fascias, trims and rainwater products are all available to match for a perfect installation.

The Liniar range of PVCu cellular foam roofline products is designed and manufactured at the same extrusion facility as its windows, doors and roofs, using the same high quality manufacturing materials and processes.

With extra-thick boards and pre-marked protective tape for ease of installation, fascia boards are available in a range of colours and factory-fitted foils, with coloured mouldings foiled for a perfect finish - all covered by the Liniar 10-year guarantee.



Installation Supplies

Providing a perfect finish for all construction projects, the Liniar Approved range has been carefully selected to complement all of Liniar's products.

The range also includes fixings, packers and other accessories such as glazing shovels and colour matched touch-up pens. The Liniar Approved range is available from Liniar stockists nationwide.



Decking

Now you can create a seamless match for developments when you install Liniar decking and balustrade, with matching foiled finishes giving a long-lasting and maintenance free result.

Deckboards are slip and wear resistant, require no sanding, staining or painting and are rated Class 1 for fire safety. Balustrade rails are fully sculptured, with hidden fixings and accessories foiled to match for beautiful aesthetics.

Liniar decking is produced in kit format to your specific requirements, with everything delivered pre-assembled. It's simple to install, with video and brochure guides to help ensure your fitters get it right first time.



Fencing

Liniar's fencing system is part-recycled, providing an eco-friendly, maintenance-free alternative to traditional materials. It's available in a choice of colours and finishes, from plain PVCu to beautiful woodgrain foils, as well as a matt composite finish.

The density of Liniar fencing means it is strong enough to stand up to the elements for many years while remaining surprisingly lightweight and easy to fit.

Robust and durable, homeowners love Liniar fencing as it won't require sanding or staining each year to maintain its appearance.

All Liniar fencing is fully interchangeable with other fencing materials including concrete and timber, so panels can be slotted in between existing posts if required. Arched tops and other accessories are available to complement the range.



Piling

Made from 100% recycled PVCu, Liniar's piling range is used in a wide variety of applications, with many construction firms recognising its benefits for soil, bank and water retention on new developments.

The innovative log pile from Liniar features an attractive timber composite finish, replacing the requirement for bricks for retaining walls. Consisting of 3 interlocking tubes, log pile can be filled with concrete for supreme strength.

In addition to log pile, Liniar piling comes in a traditional piling style that can be configured as a Z or a box shape, as well as flat pile, full pan pile and trench pile for temporary works.

EnergyPlus90 from Liniar now joins an elite band of window systems able to comply with the exacting Passive House standards.



Colour options



Many other systems feature messy and time-consuming foam-filled cavities to meet the requirements of Passive House.

EnergyPlus90 is unique in that its 9-chamber profile – 3 more chambers than Liniar EnergyPlus – has been designed to meet the triple challenges of **thermal efficiency, noise reduction and security**.

Passive House

Early testing has resulted in Liniar EnergyPlus 90 joining the ranks of a select few window products to claim Passive House certification - component id: 1014wi03 & 1015fx03.

Whole window U-values for argon-filled triple glazed units with acoustic glass come in at 0.7 W/m²K with Window Energy Ratings up to A+40.

Weather Testing

Weather testing carried out on a full-sized EnergyPlus 90 window has surpassed BS6375 requirements.

Acoustic Testing

With acoustic values as high as $R_w = 42\text{dB}$, EnergyPlus 90 offers a unique proposition for commercial developers.

Why Choose Liniar EnergyPlus 90?

- Whole window U-values as low as $0.5\text{ W/m}^2\text{K}$ (QGU) and WER as high as A++40
- Featuring the patented Liniar bubble gasket and glazing flipper.
- Utilises standard Liniar chamfered and sculptured beads.
- Sight lines, frame cover and clearances similar to EnergyPlus (looks and operates as a 70mm system).
- 48mm & 56mm triple glazing options.
- PAS24:2016 accredited and Secured by Design
- BS6375 parts 1, 2 & 3 accredited.
- No steel reinforcement required
- Suitable for use with heavy duty hinges and hardware
- 90mm system that looks and acts as a 70mm system

Case Study - EnergyPlus90

When a fabricator was tasked with supplying the windows for a new build property that would provide outstanding thermal efficiency, noise reduction and security without compromising on style, they seized the opportunity to put Liniar's new system to the test. AJK Builders, based in Essex, had been commissioned to build two flats in an urban area, meaning a strict set of criteria from the architects in regards to the windows. They approached a local Liniar fabricator to see if they could meet the necessary requirements.

Although they didn't currently manufacture anything that would be suitable, they contacted Adrian Redshaw, Liniar's Design & Development Director, for some advice on the best way to achieve these guidelines. He informed them that it just so happened that Liniar had been working on a new 90mm system that would be ideal.

Liniar's EnergyPlus 90, a 9-chamber profile that complies with the exacting Passive House standards – even with laminate – has been designed to provide superior acoustic values as well as outstanding thermal and security specifications.

Adrian explained why Liniar designed the new system: "Because of the rise in the amount of new housing projects on repurposed land, frequently located close to noisy transport networks, architects are increasingly specifying more stringent acoustic requirements, as well as energy efficiency and high security."

After hearing about EnergyPlus 90, the fabricator jumped at the chance to be the first company to work with the new system. They provided and installed the 15 EnergyPlus 90 windows required for the two flats and were highly impressed with the new product.

"Our fitters were very happy with the EnergyPlus 90 windows and said they were just as simple to install as the 70mm Liniar system that they're familiar with. Not only are they easy to fit, but they are fully compatible with a 70mm door system and look fantastic."

To find out more about EnergyPlus90 go to www.liniar.co.uk/upvc-windows/passivhaus





Case Study - Millbrook Developments

With a steady stream of enquiries through its website, Liniar is able to work in partnership with customers to ensure the end user achieves the results they are looking for.

Millbrook Developments is a family business with over 30 years' experience in designing and building luxury homes. A property developer with a reputation for high quality, it's important for Millbrook to select the best window and door products as part of its offering to customers.

"For our latest development, in Barrow, near Clitheroe, we wanted flush sash casement windows in 7016 Grey," said Judith Johnson, Millbrook's Managing Director. "We looked into various options, including timber and aluminium, but our research showed us that buyers prefer PVCu.

"My online investigations led me to Liniar and they ticked all the boxes – stylish, energy efficient and a great choice of colours.

"Another major deciding factor was that Liniar offered different sized main frames. This was necessary for this project as the homes in question

were to be natural stone on the front and rendered at the rear and gable ends – meaning two different sizes in aperture depth."

Judith contacted Liniar to find a fabricator that could manufacture, supply and fit the windows and matching bi-fold doors, and was put in touch with a nearby company.

As well as seeing samples of the windows that would be produced, Judith was encouraged to visit the fabricator, providing reassurance that she could put her faith in them.

Once negotiations and terms were concluded, they measured the first plot themselves to ensure the windows were made to the exact sizes required. As a result of this attention to detail and commitment to quality, the project progressed smoothly and exactly as planned.

Judith concludes: "The windows look beautiful and the finished effect is fabulous."

More information can be found at www.millbrookhomes.co.uk





Case Study - Tilt & Turn Windows

When Strata, a highly respected home builder, renowned for a love of design and unrivalled attention to detail and care for product quality and specification, search for the right windows for a stylish new inner city development – it's no surprise that they chose Liniar.

"We were looking for something different and loved Liniar's outlook and fresh approach," said Tristan Green, Strata's Commercial Manager. "We were looking to work with a forward thinking, innovative company who would help to shape our new house ranges for 2017/2018 and we were very impressed with what we saw from Liniar."

For a company that prides itself on paying attention to every detail in a new home, the choice of windows is vital to the final aesthetic – as well as offering thermal efficiency – and that's why Liniar was chosen for Strata's Agenda development at Merchant Gate, a vibrant new commercial quarter in the heart of Wakefield.

Consisting of a collection of two bedroom Livorno homes, designed over three floors and ideal for

first-time buyers, Agenda's central location, transport links and nearby amenities make it the perfect choice for young professionals.

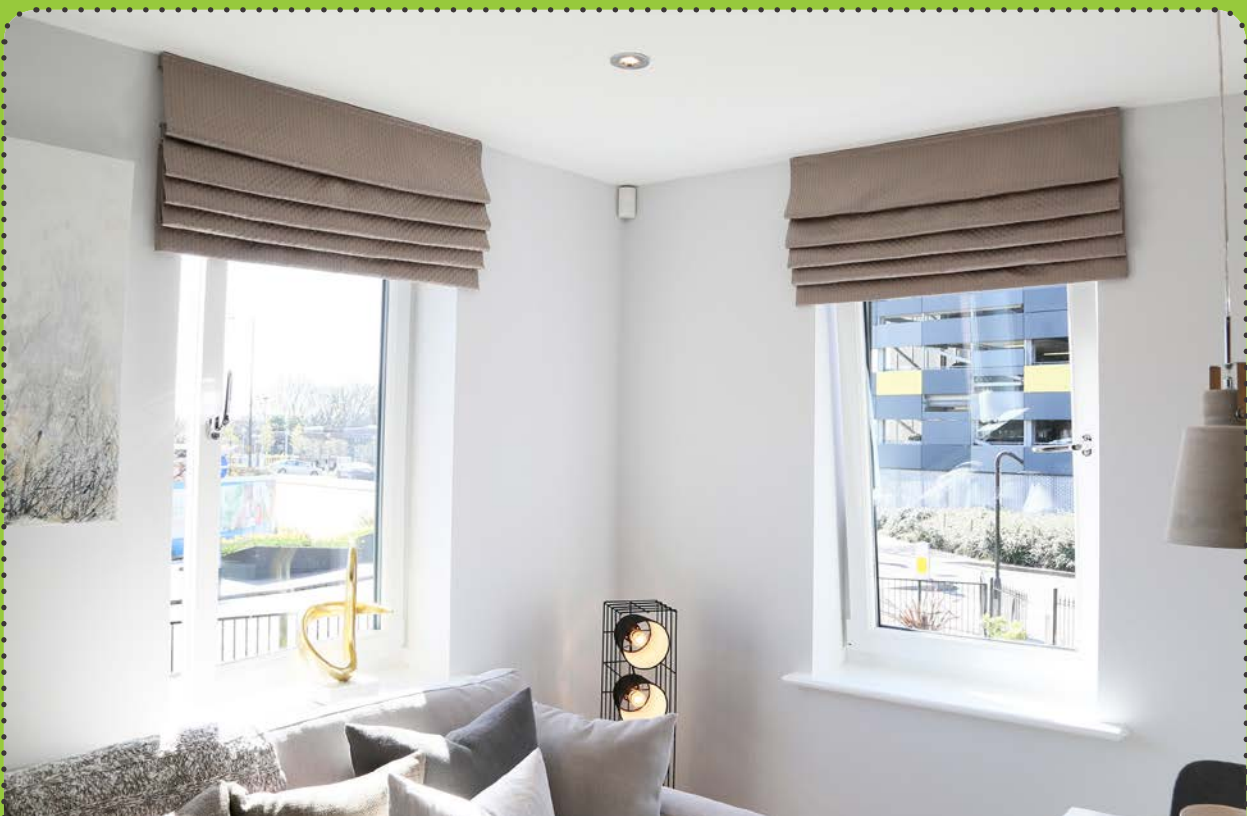
"We specified tilt and turn windows because of the type of homes these are," said Mike Barnett, Head of Design for Strata. "And we opted for 7015 Grey to give them a beautifully unique, contemporary finish.

"The open in style means that the windows can be easily cleaned from inside, while the tilt position allows secure ventilation.

"They're ideal for high-rise and low-rise buildings and also provide a fire escape for extra peace of mind. The superior energy ratings that Liniar windows offer means lower fuel costs for our customers, saving them money in the long term.

"We've formed a good relationship with Liniar over the course of this project, due to their honest approach and innovative products."

More information on Strata's Agenda development can be found at www.strata.co.uk/our-developments.



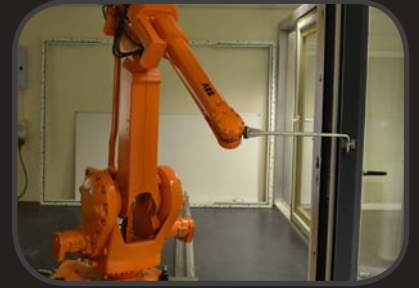


The fully aluminium door range from Linar



Safe and Secure

Alumina products include bespoke hardware with shootbolts, independently tested to PAS24, Part Q and Secured By Design.



Energy Efficient

Thanks to the innovative patented combined lock and thermal insert, ultra-low U-values can be achieved with ease.



Fully tested

All Alumina products have been independently tested to ensure they are secure, robust, durable and operate smoothly.



Foiled Finishes

Alumina products are available with an optional foiled finish, giving warmth and a beautiful matching appearance.



Guaranteed

Foiled finishes come with Linar's 10 year guarantee – assuring a single point of warranty when installed with Linar windows.



Reliable Supply Chain

Manufactured within Linar's existing, reliable supply chain, Alumina products can be delivered with your PVCu windows.



High strength to weight ratio

Aluminium is the perfect material for large door apertures – as one of the lightest engineering metals, it has a density of one third that of steel.

Its strength to weight ratio is therefore far superior to steel, meaning aluminium is lighter and easier to transport and fit whilst retaining supreme strength for large glazed units.



Ideal for commercial projects

Larger apertures require larger windows and doors, and aluminium provides the strength and support for increasingly larger sizes to be specified.

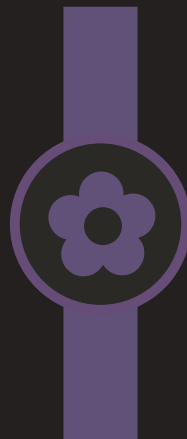
Retail outlets, restaurants and car showrooms are all ideal locations for aluminium bi-folding doors, especially when combined with Alumina's low threshold option.



Resists weathering

When the surface of aluminium is exposed to air, a protective oxide coating forms. This oxide layer is corrosion resistant and can be further enhanced with surface treatments such as anodising.

Alumina products are treated with either a powder coated colour, or a factory-fitted foiled finish, making them truly weatherproof and built to last.



Aesthetically pleasing

Due to the strength of aluminium, wider and taller panes of glass are achievable. This means a higher glazing to frame ratio, creating large expanses of glass for a cutting edge appearance.

The uniquely sculptured frames of Alumina offer a perfect match to Linar PVCu windows whilst allowing for greater sizes – offering clients the best of both worlds.



Supreme security

The ModLok™ concept, first seen in the Linar patio suite and PVCu bi-fold system, has been carried over to the Alumina range, which has its own unique modular lock and combined thermal insert.

Alumina products include high security features such as shootbolts, anti-lift features and anti-bump cylinders, achieving PAS24 accreditation with ease.



Sustainable

Aluminium is a good reflector of both visible light and heat. Furthermore, its recyclability is unparalleled.

When recycled aluminium is compared to virgin aluminium, there is no degradation in properties – and recycling requires just 5% of the input energy that's needed to produce virgin aluminium metal.

Our mission is to be recognised as a leading force for quality and excellence in product development - fusing industry experience with innovation, sustainability and loyalty.

Aluminium windows were formerly the preferred choice for many commercial installations, due to the structural strength and size they could reach. With developments in the PVCu sector, including 'flush sash' in-line frames, many developers have seen the benefits of using cost effective PVCu windows and doors in projects both large and small.

There are still projects that require aluminium, however, and the Liniar design team began to address this with the launch in 2016 of its first aluminium system: Alumina. The bi-folding door system spans sash heights of up to 2.5m and sash widths up to 1.2m, with U-values as low as 1.3 W/m²K, thanks to Alumina's patented thermal lock. Alumina doors have two distinct differences to other aluminium doors on the market: they have been designed with a sculptured shape that replicates the lines of Liniar PVCu windows; and they can be supplied with a foiled finish. As a result, projects can now achieve the best of both worlds - cost effective and thermally efficient PVCu windows, with large scale aluminium doors - for a perfect match.

Colour Options

Alumina doors are supplied as standard in plain white, black or grey (7016) powder coated finishes.



White Powder Coat Paint



Black Powder Coat Paint

Doors are also available with beautiful matching coloured foils, which can be applied to the interior, exterior or both.



Grey Powder Coat Paint (7016 RAL)

Liniar's high quality foil range is precision factory fitted and fully guaranteed for 10 years.



White Foil



Cream Foil

The colours printed in this brochure are representative only; please ask to see an Alumina foil swatch booklet for the most accurate colour choice and match.



Chartwell Green Foil



Irish Oak Foil



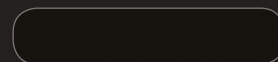
Golden Oak Foil



Rosewood Foil



7016 Grey Foil



Black Foil



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 1.3 W/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 enables Alumina doors to reach U-values as low as 1.3 W/m²K 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 almost any powder coated RAL 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 6.5m, Alumina bi-folds can also reach 1.2m tall. With a bespoke bottom-rolling 8-wheeled system, Alumina doors offer a heavy duty solution for a variety of applications.

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



Case Study - Alumina Bi-Fold Door

Alumina and PVCu - a perfect match

A property renovation in Essex was the perfect opportunity to showcase the perfect match between Linar PVCu windows and the Alumina aluminium bi-folding door.

Having chosen replacement casement windows and residential doors in Irish Oak when they first moved into the property, the homeowners had also applied for planning permission to build an extension.

The original requirement was for large French doors with sidelights, as the belief was that PVCu bi-folds would not allow for wide panes of glass. However, when the installer spotted the Alumina bi-fold, with its matching sculptured beads, he knew it was ideal for the project.

A true aluminium bi-folding system, Alumina also offered great thermal efficiency, thanks to its innovative thermal lock – and as it could uniquely be foiled to match the window system, the whole project would benefit from seamless aesthetics.

The homeowner agreed immediately, and ordered a three-pane Alumina bi-fold with Irish Oak foiled exterior and white powder coated interior.

The installer commented:

"I found the Alumina bi-fold very straightforward to install. It compares very well with other bi-folds I've fitted, and the fact it comes from a trusted systems house gives me confidence that it's been properly tested and won't cause me any issues.

"Alumina is extremely well designed, with finishing touches that make it stand out, such as the innovative folding keys which greatly reduce the possibility of damaging the doors if left in situ. And the fact it's foiled and sculptured to match the Linar window suite gives it a distinct advantage over other bi-folds!"

The homeowners agreed:

"We weren't sure about a bi-fold door at first – but as our installer had made such a fantastic job of our windows and doors, we trusted him completely. As soon as he showed us Alumina, with its low U-value and matching Irish Oak finish, we were sold!

"We've had lots of compliments from visitors as the Alumina bi-folding doors look amazing."



Approved Fabricators

Liniar windows and doors are manufactured by a wide network of fabricators across the UK, many of which have gone through a stringent testing and validation process to become Liniar Approved Fabricators.

Where a Liniar fabricator has the stamp of approval, you can be assured the windows and doors they produce:

- Contain only Liniar supplied or approved parts
- Use only Liniar approved manufacturing processes
- Conform to the latest British Standards
- Have been quality checked before leaving the factory
- Are CE marked in accordance with the latest regulations.

In addition, all Liniar Approved Fabricators have a clear dispute resolution process in place - giving customers assurance that any problems will be swiftly dealt with, together with the peace of mind offered by the Liniar 10 year profile guarantee.



Liniar 10 Year 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.

The Liniar guarantee is issued in association with our raw material suppliers and based on proven technology for UV stabilised products.

Further details, weathering data and full conditions can be supplied on request. All products are to be installed to Liniar recommendations.

* Liniar bi-folding and patio doors consist of a wide variety of components that cannot be covered under one guarantee - see separate product guarantees for more information.



Installer Support

The full Liniar range has been designed to save time for installers, making it ideal for large scale commercial projects where speed is of the essence.

Bespoke glazing platforms mean double or triple glazed units are fitted to the frame more effectively, and Liniar's unique beading system provides a quick, easy and attractive finish.

The Liniar patio can be mechanically jointed, making it easier to install in hard-to-reach areas, and the low threshold option on both the patio and bi-fold systems doesn't require trench excavation, reducing preparation time.

Liniar's co-extruded gaskets ensure no draughts or leaks for the end user – resulting in fewer call-backs for installers. With guidance for on-site fitters including a range of installation guides and videos to ensure the highest quality installations, the Liniar range is also fully supported by an in-house technical team to answer any queries.



Specification Guide

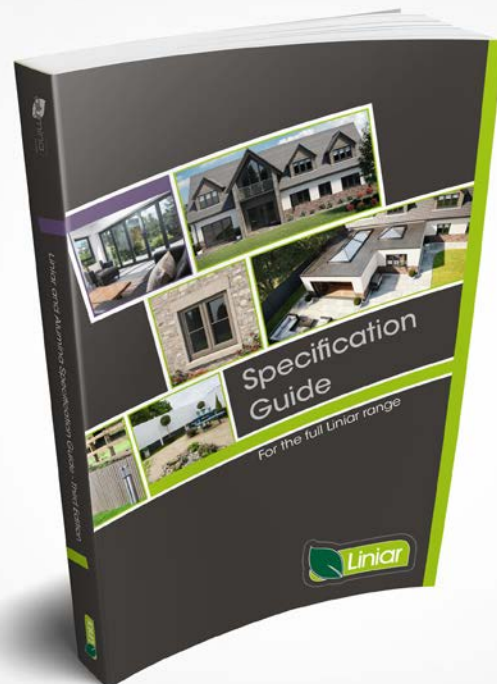
The Liniar Specification Guide features full technical specifications, measurements and details about every single product in the Liniar and Alumina ranges.

A "bible" covering the technical and specification details of every product in the Liniar range, this must-have brochure for every specifier and developer can be viewed at Liniar.co.uk/specification-guide.

You can also order a free hard copy of this reference guide for your bookshelf by visiting:

LiniarSpecGuide.co.uk

(please allow 14 days for delivery).



Specifier's Centre

The Specifier's Centre on the Liniar website is the place you'll always find the very latest information.

In addition to legislative changes, the Liniar range is constantly being developed - so please check our online Specifier's Centre for updates and access to a wide range of content including:

- Product charts
- Case studies
- Certificates and guarantees
- CE Marking information
- Approved Documents
- WER calculator
- Hardware information
- Product fact sheets
- Operation and maintenance guide
- Installation guides
- Videos
- Finding an Approved Liniar Fabricator

If there's something you need but cannot find in the Specifier's Centre, please email us at info@liniar.co.uk and we'll do our best to help.

www.liniar.co.uk/specifiers



Liniar for Architects

You can select Liniar products for your projects through your RIBA NBS Plus software to create L10 or L20 specifications.

Contact us for more information or find out about Liniar specifications on RIBA Product Selector.



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Useful links:

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

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

Hardware: www.liniar.co.uk/hardware



Social Media - follow us!



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LiniarUK



LiniarUK



Thanks...

Liniar would like to thank all those customers who contributed by kindly supplying images and case studies, along with homeowners and developers who have given us permission to photograph their properties.

We reserve the right to change or amend product specifications at any time in the interests of our ongoing commitment to innovation. To keep up to date join our mailing list, see www.liniar.co.uk/specifiers for more information.

Case Study - Mock Sash Casements and French Doors

Outstanding thermal performance for prestigious properties.

Kirk Hallam Building Company is one of the longest established house building and development companies in Amber Valley.

When specifying windows and doors for its development of four and five bedroomed executive homes in Heanor, it turned to Linar.

The plots at Starthe View were specified with 'A' rated cream window frames featuring mock sash horns as a decorative finishing touch.

The Linar range was ideal for the development, as its lead-free, multi-chambered profile fitted well with Kirk Hallam's desire for eco-friendly homes - which also featured rainwater harvesting systems, solar hot water heating and high levels of insulation.

Linar French doors were also provided for each property as well as a smart black front door with a

cream interior to match the inside of each home, giving the exclusive scheme a personal touch.

Leigh and Jamie Stevenson, directors of Kirk Hallam homes, explained:

"Quality homes need quality windows and doors, so we were careful in our choice of supplier in order to meet this requirement.

"The Linar range delivers the energy efficiency we were looking for, with A rated windows as standard, and we chose cream to give a different look and feel to the usual white PVCu windows on other sites."





Case Study - Casement Windows

Outstanding thermal performance for prestigious properties.

A prestigious project by North East developers Cussins, in Northumberland, called for the very best in all-round energy efficiency – making it vital that they chose a window and door provider that could deliver high quality products with the best possible thermal performance.

Set in a truly unique location overlooking the spires and rooftops of Alnwick to its famous Medieval Castle and beyond, The Limes is an impressive collection of more than 80 two to five bedroom homes, built to the highest standards in sandstone and heritage brick.

The window and door frames specified on The Limes project give a traditional twist to a contemporary development.

The EnergyPlus profile used features six symmetrical chambers running through the inside of each

window and door frame. This trapping of air inside the PVCu minimises the transfer of heat from the inside of a home to the outside, providing homeowners with a highly thermally efficient dwelling and reducing their ongoing heating bills.

The cream frames are covered by Liniar's 10 year guarantee, and match the rest of the Liniar range – so buyers can also add products to personalise their new home. For example, a fully matching Liniar conservatory with bi-folding doors could add extra space as well as a versatile garden room to enjoy the spectacular views.

Kirk Thompson, Construction Director for Cussins commented: "We're delighted with the window installations at The Limes. With a project of this nature, the highest quality is imperative – and the cream windows add a luxury finish to the homes on the development."





7 great reasons to choose Liniar

Innovative - a culture of research and development means exciting new product launches and continuous improvement

Lead free - all Liniar profiles are extruded using materials that are 100% lead free

British Made - manufactured in a state-of-the-art factory in the heart of Derbyshire

Commercial - Liniar offers tender management, liaising with Approved Fabricators for the best solution for developers

Energy Efficient - designed from scratch to achieve the pinnacle of thermal performance and retain more heat inside the property

Accredited - backed with ISO 9001 accreditation for peace of mind

Guaranteed - all Liniar PVCu profiles are guaranteed to not warp, split or discolour for a period of 10 years.

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