

OptimaTM

SCULPTURED SYSTEM



THE BEST WINDOWS ARE MADE FROM



OptimaTM

SCULPTURED SYSTEM





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OptimaTM

SCULPTURED SYSTEM

Optima – simply a better PVC-U system

Sometimes it takes a little time to get things perfected. Standards change and expectations change –what was brilliant twenty years ago is ‘old hat’ now. We believe that Optima is the best PVC-U system available today. It includes all the refinements and improvements you would expect and some that take it to a whole new level. It’s complete, fully integrated and its thermal performance is outstanding. We’ve done all this in a package that’s attractive, simple to fabricate and a breeze to install.

Optima is brought to you by Profile 22, a business that’s part of the long-established Epwin Group. Our business is low-maintenance building products. We’ve built our reputation on products that can be trusted, on quality and innovation. As a result, Profile 22’s systems are used in all sectors and are the most widely specified in the UK. We’re proud to be a British business with a long tradition of excellence in manufacturing and customer support.

Optima is the ideal system for windows and doors. It’s produced using state-of-the-art equipment and tooling to guarantee exceptional quality and high environmental standards. It’s a system designed for everyone who uses it: for homeowners, architects, facilities managers, construction professionals, window fitters and fabricators.

Things always change, but Optima is here today and it’s ready for tomorrow.



Achieves
WER A++

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Achieves a
0.8 U-value

Optima – the optimum sculptured system

Optima is designed for the production of casement, Tilt and Turn, French casements and residential and French doors. It is a fully-integrated, 70mm-depth system, easy to install and suitable for a wide range of projects where a sculptured profile is required.

Better all round

Better insulated: with more chambers, Optima offers excellent thermal performance. The 6-chambered outerframe and 5-chambered sash can also be used with RCM Thermal Inserts to increase the number of insulating chambers.

Better ancillaries: an extensive range of cills, baypoles, accessories and packers which allow everything you need to complete a project.

Better choice: with the widest choice of glazing options on the market, you have more ways to offer affordable and energy-efficient windows.

Better protection: Revolutionary, optional centre seals to the outerframe and sash give outstanding insulation and weather protection.

Optima – engineered to be better

- Deeper drainage channels carry water away quickly and **improve weather performance.**
- A central Eurogroove gives **superior security and strength.**
- Deep add-on legs allow **extra tolerance during frame installation.**
- Strategic, local wall thickening for **better screw and hardware retention.**
- **Secure bead system** passes security tests without glazing clips and is ready for proposed enhancements to PAS24.
- 10mm overlap for **improved weatherability.**
- Narrower frame for more light and **improved solar gain.**



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The Optima **product range**





The Optima product range

Wouldn't life be simple if all windows were the same size and shape and all fitted into the same sized apertures? One style, one colour? Fortunately, life's not like that – we'd soon get bored if it was! But in practical business terms, there is a trade-off between keeping stock under control and satisfying customer choice. That's where Optima excels. The sculptured shape of Optima is clearly part of the Profile 22 family of products. It's a complete system, but it's compatible with other products from Profile 22 and that gives you lots of options, enough to enable perfectly-finished installations in all sorts of properties for all sorts of customers.

Optima is ideal for replacement windows, new builds, self-builds and for commercial applications. Its advanced design features offer a range of cost-effective ways to achieve the standards of window performance required – right up to the Band A++ WER. Optima is a top-quality system, built for a long, trouble-free life. It has been designed to be simple to fabricate and install, and because you wouldn't expect anything else from a name like Profile 22, it meets the requirements of UK and EU Building Regulations and PAS24. It is highly accredited and can meet the standards of the Secured by Design scheme.





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Casement windows

No window system supplier would ever underestimate the importance of casement windows to the UK housing and property market. The classic design is only improved by Optima's slim, sculptured profiles that give improved sightlines and the advantage of a higher glass-to-frame ratio. Optima is strong and almost any size or layout of casement is possible. There are components for bays, bow windows and conservatories, and a range of ancillaries for the important finishing details.

Optima casements are at home anywhere, in modern or period properties, in the town or in the country. The system is adaptable, stylish and high-performing and offers everything that your customers want. What's more, it has been designed by people who understand fabrication and installation. It's a great system to work with.

Product features

- Optional Outer Frame Centre Seal
- Optional Sash Central Seal
- Sculptured Edge Design
- Glazing Options up to 44mm Triple Glazed
- 5 Chamber Sash
- 6 Chamber Outer Frame
- Optional RCM Thermal Inserts create up to 6 chamber sash and 8 chamber outer frame
- 10mm Cover on Weather Seals





Perfectly balanced casements

With casement windows, balance is everything. Too much frame and that's all a homeowner sees. Too little frame and there's no strength. Optima has been engineered to provide the slim, aesthetically-pleasing look that customers want, but it's strong enough to be made into almost any configuration. The central Eurogroove that adds to the window's security also gives it structural rigidity. The extra overlap on the frame protects from the weather and increases the glass to frame ratio. And that's not all – we've located our wall thickening in just the right places to make hardware positioning easy and improve screw retention. A 70mm depth outerframe means easier installation and less making good for the vast majority of projects and a great selection of purpose made ancillaries, mean that the basic frame can be customised to suit the job.



Optima windows can achieve a WER of A++ and a U-value of $0.8\text{W/m}^2\text{K}$. When you need to offer a range of thermal-performance standards, it is the perfect system. Designed to give you more options, it will take 24mm or 28mm double glazing, and for triple-glazed windows there are 36mm, 40mm and 44mm choices. An optional third seal to the sash and outerframe, and recycled thermal inserts increase the number of ways you can achieve the required energy-efficiency ratings, without falling back on the most expensive gas fills.



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French casement windows

Ideal for dormers, cottages and smaller window apertures, French casements, with their symmetrical opening panes offer both extra ventilation, clear, unrestricted views and the possibility of an emergency-escape route. The slim profiles of the Optima system are the best way to ensure a good glass-to-frame ratio and the best ratings for passive solar gain.

Optima offers exceptional weather-tightness and thermal insulation. The multi-chambered sections will even take a thermal insert for enhanced insulation and there are glazing options to suit every budget and performance requirement. With a full range of foil finishes available, it's easy to find one that's perfect for every property.

Product features

- Optional Outer Frame Centre Seal
- Optional Sash Central Seal
- Sculptured Edge Design
- Glazing Options up to 44mm Triple Glazed
- 5 Chamber Sash
- 6 Chamber Outer Frame
- Optional RCM Thermal Inserts create up to 6 chamber sash and 8 chamber outer frame
- 10mm Cover on Weather Seals





A beautiful new tradition

French-style casement windows open up more market opportunities. The design is both simple and elegant and with the softer curves of the sculptured profile, Optima's French casements have a definite craftsman-built look. But despite the traditional appearance, these are very advanced windows.

We've invested in the most up-to-date tooling and extrusion technology. It's paid off in superb quality. Every dimension is exact, every detail perfect. These are profiles that will enhance your reputation because they should be trouble free on installation and for a very long time afterwards. Our bubblex gaskets, offer consistent compression and seal the windows to prevent air leakage. Our deeper drainage channels clear water away from the frames and sealed-units preventing damage. A central Eurogroove on the sash and strategic wall thickening ensure reliable hardware fixing and secure windows. Clip-in beads make glazing speedy and simple – there's no need to add security glazing clips to meet PAS24 standards. Boost the level of insulation with recycled thermal inserts to the outerframe and sash and improve window energy ratings without using the most expensive gas-filled units.

Use either 24mm or 28mm double glazing or choose a third pane – Optima takes 36mm, 40mm or 44mm glazing, so that there's a perfect window for every property and budget.



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Tilt and Turn windows

With simple to operate, reliable gearing, more and more British homeowners are beginning to appreciate the sheer practicality of Tilt and Turn windows. Open up more opportunities by using these windows in all sorts of properties – they're ideal where there's any sort of access restriction or where a home sits close to a busy road. And they make great practical windows for all kinds of commercial premises too, offering secure, draught-free ventilation.

Tilt and Turns made with Optima offer the reassurance of secure all-round locking alongside an unobtrusive and elegant frame. Its looks are light and streamlined, but its performance is reliable and strong.

Product features

- Optional Sash & Outer Frame Centre Seals
- Sculptured Edge Design
- 24/28/36/40 & 44mm Glazing Options
- 5 Chamber Sash
- 5 Chamber Outer Frame
- Optional RCM Thermal Inserts create up to 6 chamber sash and 7 chamber outer frame





Stylish and practical

When choosing windows for high or medium-rise properties, they have to be exceptional performers. Optima fits the bill perfectly, bringing new standards to Tilt and Turn technology. Optima's profiles are remarkably strong considering their streamlined shape and, importantly, they are built to offer increased levels of insulation and weather protection. Ground-breaking ideas like the optional third seal on the outerframe and sash are added to smart changes like the increased frame overlap which improves sightlines and thermal performance. Glazing gaps can range from 24mm right through to 44mm and thermal inserts are available to enhance insulation. With customers from all sectors demanding higher-specification windows, Optima hits the mark with the very best window energy ratings of A++ and U-values of 0.8 W/m²K.

Tilt and Turns can incorporate all the advanced security hardware your customer wants including child-safety restrictors and advanced gearing makes them simple to operate and maintain. Combine them with fixed lights to glaze larger apertures or choose Tilt and Turns for bays, conservatories or orangeries. Wherever you use them, Tilt and Turns are at home. Engineered to be easy to fabricate and install there's a complete range of cills, packers and couplers, all of which fit perfectly. There's with a wide choice of woodgrain and coloured foils, including dual-coloured options and flat and textured finishes.

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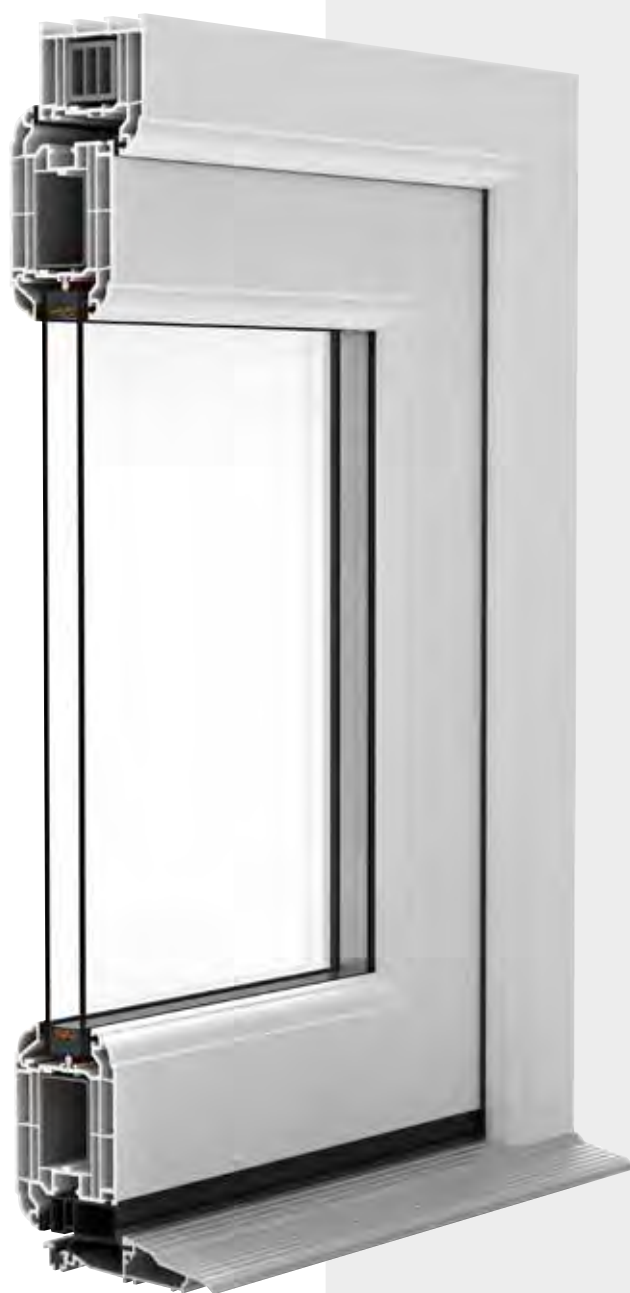
Residential and French doors

Doors have to perform well. Nothing is worse than a poorly-fitting door or one that doesn't insulate. We don't believe in compromising – Optima provides the highest-quality in function, durability, performance, finish and security. Optima is the kind of system that makes achieving a list of requirements simple. The benefit of decades of design experience and expertise have made the difference – we've looked at everything, from how each component works together to the thickness and position of every internal web, so that when you come to use it, Optima works beautifully.

Residential and French doors built using Optima's sculptured profiles are suitable for all types of project and for installation in all types of property: domestic, public and commercial buildings can now all feel the benefit of a better door.

Product features

- Optional Sash & Outer Frame Centre Seals
- Sculptured Edge Design
- 24/28/36/40 & 44mm Glazing Options
- 5 Chamber Sash
- 5 Chamber Outer Frame
- Optional RCM Thermal Inserts create up to 6 chamber sash and 7 chamber outer frame
- Part Q & M Compliant





Warm and welcoming

When we set out to create Optima, we knew that our door profiles would have to be something very special. Aesthetically pleasing, slim lines with the recognisable Profile 22 sculptured shape were key requirements, but we also knew that these profiles had to make a door that was weatherproof, highly secure and insulating. On top of that, we had to develop a system that could meet the vast range of installation types and customer needs.

Optima is ideal for French and residential doors. It's tough and strong and meets all the requirements of Building Regulations and PAS24. To meet different energy ratings, there is a choice of glazing gaps ranging from 24 to 44mm and optional, recycled, thermal inserts. Low thresholds are available, as are open-out options for fire or safety doors. The Optima system fits off-the-shelf hardware and can be used with the most secure locking systems on the market. The French door system has a dedicated, purpose-designed floating mullion. Doors can be coupled to fixed lights to provide larger installations.

All Optima doors enjoy the benefit of the 10mm frame overlap that gives outstanding weather performance. And for doors with midrails, the wider section can easily accommodate a security-cowled letter-plate to meet PAS24 standards.



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Optima ancillaries

The right ancillaries finish a job. Without them, possibilities would be limited. With Optima, all ancillaries are made to fit and function perfectly with the main suite. You can customise a frame, make it better insulated, match other glazing, add detail and you know that you are enhancing the result. Optima ancillaries have the same, high-quality finish and durability as our main system components and are available in our full range of colours and finishes.

Cills

Complete with end caps and couplers, our cill sizes range from a modest 85mm to a substantial 225mm. There's a single reinforcing size to help keep your stockholding under control and steel and recycled composite materials (RCM).

Thermal Inserts

Thermal inserts are an effective way to achieve better U-values and WERs without the cost of the most highly-insulating sealed units. Simple to use and cut, they slot inside the profiles during fabrication, increasing the number of insulating chambers. What's more, they're made from recycled materials, enhancing your green credentials.

Baypoles

A range of baypoles enables the installation of strong and robust bay and bow windows. With variable, square and fixed angle variants, all shapes and sizes of immaculately-finished installation are possible.

Couplers

Couplers are available in a range of sizes from 3mm to 29mm.

Packers

Packers are available in four sizes ranging from 15mm to 50mm.

Astragal Bars

A choice of sculptured and chamfered glazing bars is available in all Optima colours and finishes.

Weatherbars

Ideal for Optima French or residential doors, weatherbars provide the important finishing touches to an installation.

Casement Horns

Run-through casement horns and cover caps are available in all Optima colours and finishes.

Our Guarantee

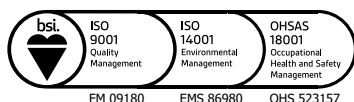
Optima is made by Profile 22, a long established British business with a reputation for delivering consistently high-quality, trusted and reliable products. Profile 22's window and door systems are the most widely specified in the UK.

The Optima system is new and parts of it are revolutionary, but it's undergone stringent testing. We wouldn't have it any other way. We've subjected windows and doors to extreme conditions and we've got the experts in to prove it. Our standards are high and we'll keep pushing them higher as we keep on investing in the latest manufacturing and testing equipment.

Our products are:

- Kitemarked
- Conform to all relevant British standards
- Produced under an ISO 9001 Quality Management system
- Meet the requirements of ACPO's Secured by Design scheme.

All parts of the Optima system are fully guaranteed. Our white profiles carry a ten-year guarantee. For foiled profiles, the guarantee varies according to the finish. Full details are available upon request.



BS EN 12608
KM12895
PROFILE



BS EN 12608/PAS24
KM33523
ENHANCED SECURITY
WINDOW SYSTEMS
SUPPLIER



BS EN 12608/PAS24
KM56791
ENHANCED SECURITY
DOOR SYSTEMS
SUPPLIER



BS 8529/PAS24
KM594776
ENHANCED SECURITY
DOOR SYSTEMS
SUPPLIER



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Optima colours

Being able to offer a wider selection of coloured and woodgrain finishes, with complementary base colours, gives a competitive edge to your business, and better looking windows and doors for your customers. Fashions and styles change. Solid colours and subtle creams are replacing the dominance of white. Customers are selecting finishes that respect their building materials, the age of their properties and their local surroundings. Optima offers more colours direct from stock. And if we don't stock the finish you want, we'll use our Foilexpress service to get it to you.

All Optima foils are top quality and fully guaranteed. The biggest difficulty your customers will have is in deciding which of our many finishes they prefer, but samples and swatch books are available to help.

Stock Colours

Premium



Anthracite Grey /
White (PVC-U)
(White Base)
System: 1, 2, 3, 4



Anthracite Grey /
Anthracite Grey
(Grey Base)
System: 1, 2



Rosewood /
White (PVC-U)
(White Base)
System: 1, 2



Rosewood /
Rosewood
(Brown Base)
System: 1, 2



Black Brown /
White (PVC-U)
(White Base)
System: 1, 2



Black Brown /
Black Brown
(Brown Base)
System: 1, 2



Light Oak /
White (PVC-U)
(White Base)
System: 1, 2



Light Oak /
Light Oak
(Tan Base)
System: 1, 2

Premium Plus



Cream /
White (PVC-U)
(White Base)
System: 1, 3



Cream /
Cream
(Cream Base)
System: 1, 2, 3



White Woodgrain /
White Woodgrain
(White Base)
System: 1, 2, 3

Fast Track Colours

Premium



Anthracite Grey
Smooth /
White (PVC-U)
(White Base)
System: 1, 4



Anthracite Grey
Smooth /
Anthracite Grey
Smooth (White Base)
System: 1, 4



Chartwell Green /
White (PVC-U)
(White Base)
System: 1, 3



Agate Grey /
White (PVC-U)
(White Base)
System: 1, 3



Slate Grey /
White (PVC-U)
(White Base)
System: 1

Premium Plus



Sage Smooth /
White (PVC-U)
(White Base)
System: 1



Pebble Grey /
White (PVC-U)
(White Base)
System: 1



Claystone /
White (PVC-U)
(White Base)
System: 1

The colour options available on profiles offered within each system, as indicated by the Systems Key, may be restricted to selected popular sections.

Please refer to the Product Guide for availability. If in any doubt, please speak to your Customer Service Advisor

Rosewood = Black Cherry
Light Oak = Golden Oak

Systems Key

1 Optima-C | Optima-S
Flush Casement | CD70 | PD86

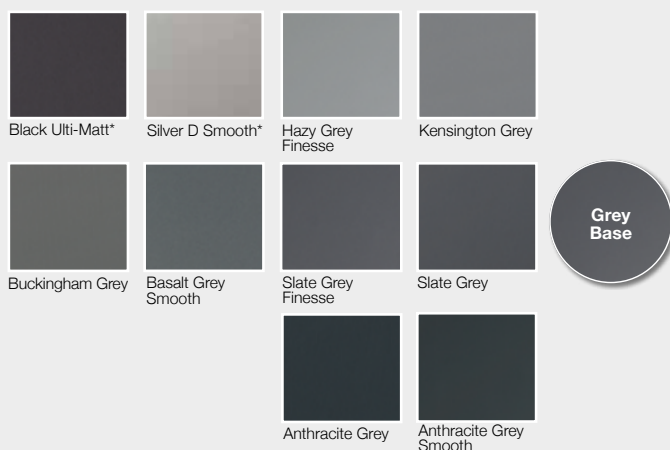
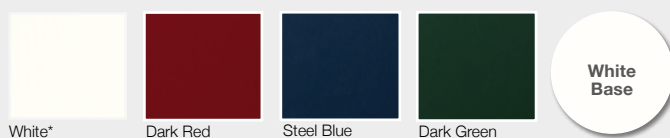
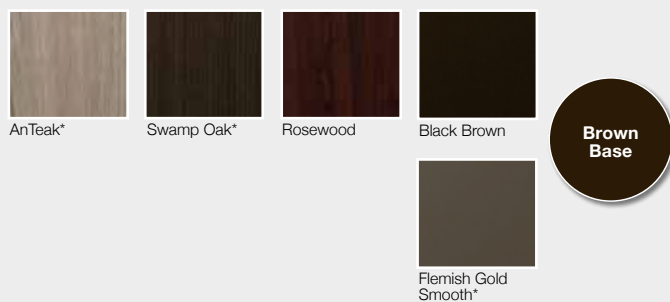
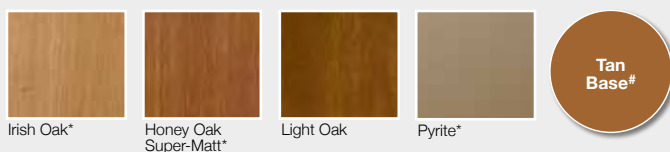
2 Optima-C Composite Door
Optima-S Composite Door

3 Vertical Slider

4 Flush Tilt & Turn | Fully Reversible



Foilexpress Made to Order Colours



* Premium Plus

Main Sections:

One colour, one side – White base
 One colour, both sides – Colour matched base (see exceptions)
 Different colours either side – Colour matched base of your choice (see exceptions)

Beads & Ancillaries:

Colour/Shade matched base if visible or white base if not visible
 E.g. Light Oak beads are supplied on a brown base and Anth. Grey beads are supplied on a brown base
 Frame Packers are supplied on a White base

Exceptions:

Cream base not available on Fully Reversible and Flush Tilt & Turn (Substituted with White)
 Tan base not available on Fully Reversible and Flush Tilt & Turn (Substituted with Brown)

The base colour options available on profiles offered within each system may be restricted to popular sections. If in any doubt please speak to your Customer Service Advisor.

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Optimum performance

Optima is one of the most energy-efficient 70mm systems available. Its brilliance lies in the adaptable nature of the system. Its components and options allow the fabrication of windows that perform to your required standards. Customers with exceptional levels of insulation in their homes can opt for the ultimate triple-glazed frames. Others, working to a budget, can improve their insulation without breaking the bank. It's simply a case of building the performance you want. Of course, Building Regulations dictate minimum standards, but it's worth knowing that Optima can easily achieve the very top end of the energy-efficiency scale. It can reach the latest A++ WERs and a remarkable U-value of just 0.8 W/m²K. That's the Passivhaus standard.

Insulation from the inside

Our clever little thermal inserts are easy to work with, safer (and quieter) than steel in fabrication and make a real improvement in insulation. By increasing the number of effective air chambers within an outerframe from 6 to 8 and in a sash from 5 to 6, they help to keep homes warmer. Their use can mean that you can achieve your desired window energy rating without resorting to the most expensive, hi-tech sealed units.

Optional extras

Our optional third seal is a revolution in the glazing industry. Available for the sash or the outerframe, you can even use it on both to take thermal performance to even higher levels.

U-values and WERs

Typical U-values

Achieves 1.2 W/m²K with double glazing*

Achieves as low 0.8 W/m²K with triple glazing

* 1.3 W/m²K on flush casement window

** Triple Glazing not available on Flush Casement Window or Vertical Sliding Sash Window

Typical WERs

Achieves A+ with double glazing*

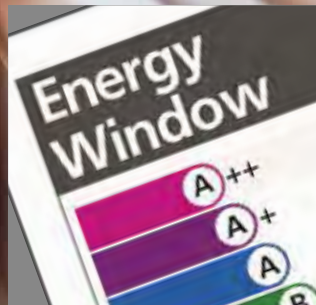
A++ achievable with triple glazing**

* Except Flush Casement Window

** Except Flush Casement Window and Vertical Sliding Sash

U-Comply N

Our online tool allows fabricators to calculate the thermal performance and transmittance of any number of Casement and Tilt and Turn window specifications. Approved by the British Standards Institute, U-Comply N reports can be used to prove compliance with the requirements of CE Marking.



Optimum care

One thing that we're very proud of is our attitude to environmental issues. We understand that PVC-U has its detractors – those for whom timber is the only 'green' choice – but we're working hard to dispel the myths about this remarkable and ultimately sustainable material.

Its low-maintenance qualities, long life span and recyclability are key to any assessment of its green credentials. Our windows are manufactured to BS 7412 and are estimated to have a life in excess of 40 years, after which they can be recycled. PVC-U itself can be recycled more than ten times, giving a total lifespan of several hundred years. Wherever we can, we use recycled materials in our products.



We keep all our operations in Great Britain. That allows us complete control over our production, emissions and environmental impact. It means that we avoid shipping from overseas and that we know and understand the working conditions of everyone who manufactures Optima. We've invested in advanced plant and technology to cut our consumption of water and energy and all of our sites operate to the environmental policy standard ISO 14001. The Building Research Establishment has awarded us BES 6001: a standard which ensures the responsible sourcing of construction products by monitoring our methods, our supply chain and environmental and social aspects of our operation.

We're doing our bit. By choosing Optima, you're doing the same.



Main Profiles

OUTER FRAMES

QS01
OUTER FRAME

QS02
OUTER FRAME

QS03
OUTER FRAME

QX01
QR01S

QX02
QR02S

QX03
QR03S
QX16
QR04S
QR05S

TRANSOMS/MULLIONS

QS10
'T' TRANSOM/
MULLION

QS11
'Z' TRANSOM/
MULLION

QS16
'T' TRANSOM/
MULLION

QS17
'Z' TRANSOM/
MULLION

QX10
QR10
QR11S

QX10
QR11S

QX16
QR17S
QR18S
QR16S

QX16
QR17S
QR18S
QR16S

WINDOW SASHES

QS30
CASEMENT 'T'
SASH

QS31
CASEMENT 'Z'
SASH

QS33
TILT & TURN
SASH

QX30
QR29S
QR31S

QX30
QR29S
QR31S

QX30
QR29S
QR31S

DOOR PROFILES

QS40
'Z' DOOR SASH

QS41
'T' DOOR SASH

QS14
MIDRAIL

QC44
FLOATING MULLION

QR40S
QR41S

QR40S
QR41S

QR15S
QR14
QR14S

QX44

FLUSH CASEMENT

QC32
FLUSH CASEMENT
SASH

QC34
DEEP BOTTOM RAIL

QX32

QX34

FLUSH CASEMENT USES
QS65 GLAZING BEAD FOR
24mm GLAZING

GLAZING BEADS

QS51
24mm BEAD

QC50
28mm BEAD

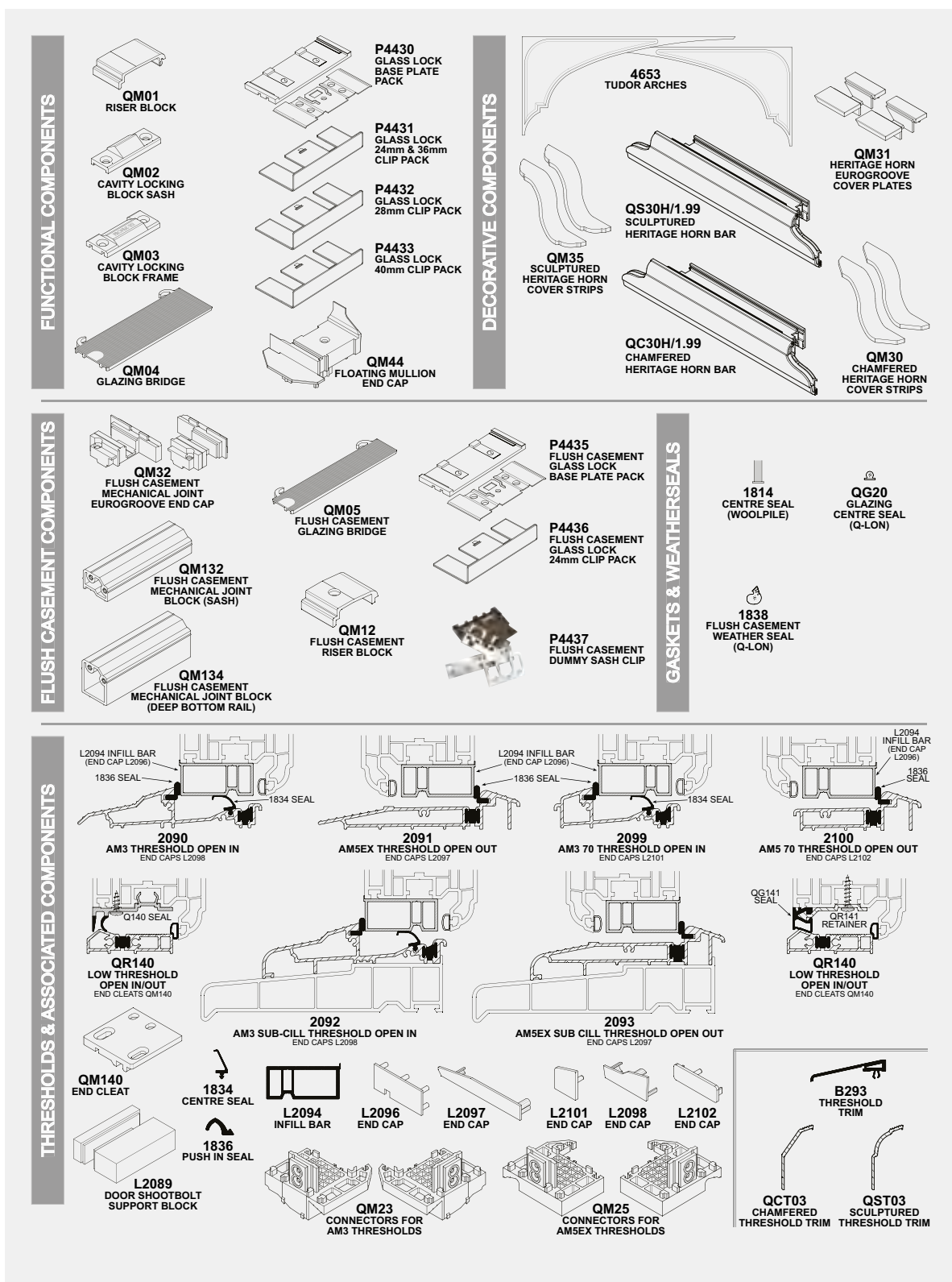
QS50
28mm BEAD

QS65
36mm BEAD

B55
40mm BEAD

B66
44mm BEAD

Ancillary Profiles



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For more information about Profile 22 products speak to your installer or visit our website at

www.profile22.co.uk

PROFILE 22 is an international PVC-U profile system supplied to local independent manufacturers and installers who contract to install windows, doors and conservatories. PROFILE 22 SYSTEMS cannot be held accountable for manufacture or installation by independent companies. All information in this publication is provided for guidance only and is given in good faith. As it is company policy to continually improve products, methods and materials, changes of specification may be made from time to time without prior notice. This statement does not affect your statutory rights. © PROFILE 22. Part of the Epwin Group Plc. PRO/17406

