

Windowmate™

WINDOWS & DOORS



Trade Information Pack



REHAU

Authorised
Partner



WindowmateTM

WINDOWS & DOORS

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About Us



With branches in Belfast, Fermanagh and Cumbernauld, we are a one-stop-shop for all your uPVC needs.

Windowmate supply windows, doors, conservatories, roofline, trims and accessories to trade fitters and small builders. We understand that quality, style and security are important for the homeowner, which is why we offer a wide range of windows and doors in REHAU profile. We make sure they are manufactured to the highest standard, sourcing virtually all our uPVC frames from local fabricator, Dessian Products Ltd. Dessian has been fabricating uPVC products for over 30 years using world renowned REHAU plastic profile; known for its quality.

We offer three window systems depending on your requirements - 60mm Tritec, TOTAL70c (chamfered) and TOTAL70s (fully sculptured edge). REHAU's highly durable uPVC window and door systems combine outstanding standards in energy efficiency and performance. All frames are produced to British Kitemark Standards BS 7412 and BS 7412/PAS 24.

Our uPVC windows and doors have double glazed units as standard. If requested, we can also supply triple glazed units. Windows will meet a Window Energy Rating (WER) of A, B or C depending on build specification.

We pride ourselves on supplying only the highest quality windows and doors on the market. With over 10 years in business, we are also proud to have a reputation for great customer service.

Visit one of our showrooms today. Here you will find a range of window and door products on display as well as accessories and glass. We have an array of styles, colours and designs to suit every home. You will be able to see first-hand the quality of the materials and workmanship that goes into all our products. These showrooms are also available for your use. Bring your homeowner to a showroom and show them the product range and available options.

Meet the Team

Our advisors have a wealth of industry experience.



Jorge Lopes

Managing Director

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Regional Sales Manager
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Branch Manager
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Office Coordinator
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Windowmate Customer Commitment Statement

We are committed to offering our customers the highest possible standards of service. Windowmate want to make your experience of buying windows and other home improvement products a positive one.

We understand that quality, style and security are important for your customer. That's why Windowmate offers a wide range of windows and doors in REHAU profile. We make sure they are manufactured to the highest standard and guarantee a quality product that will last for many years to come. We also know that design is an important element in the homeowners buying decision. Windowmate offers a whole array of styles, colours and designs to suit every home.

Windowmate source virtually all uPVC windows and doors from local fabricator, Dessian Products Ltd. Dessian, well known for its quality, has been fabricating uPVC products for over 30 years using world renowned REHAU plastic profile. We source glass based on the quality of product and all product suppliers are vetted at regular intervals.

REHAU's highly durable uPVC window and door systems combine outstanding standards in energy efficiency and performance. All frames are produced to British Kitemark Standards BS 7412 as standard and BS 7412/PAS 24 on request. Our uPVC windows and doors have double glazed units as standard. Where requested, Windowmate can also supply triple glazed units. Windows will meet a Window Energy Rating (WER) of A, B or C depending on build specification and a customer's requirement.

Quality & Innovation

Windowmate are proud to display the REHAU Authorised Partner badge. REHAU was one of the first companies to produce and sell uPVC window and door systems in the UK. All REHAU products are designed to enhance the home and be energy efficient. The REHAU brand stands for unbeatable performance.

Sustainability

We are committed to reducing our own environmental impact while helping you to reduce yours. Responsible building and manufacturing is good for everyone. Windowmate engages in sustainable business practices across the board.

Community Involvement

Order-taking, delivery and support are all more efficient when dealing with a local company. When you choose to source locally, you make a commitment to the community. We believe in actively giving back to the community in which we live and work. For all the latest news, refer to our news page at www.windowmateupvc.com or find us on Facebook.

Our commitment to you...

- Provide you with clear information about the products and services we offer.
- Provide personalised, one-on-one service for every customer.
- Provide exceptional service and deliver high quality products.
- Ensure you receive your documentation promptly.
- Do what we say we will do.
- Conduct ourselves with integrity at all times.



Jorge Lopes, Managing Director

Guarantees

Profile

All Dessian products are made from REHAU uPVC profiles, which represent the very latest in technology for modern window and door construction. We guarantee that profile shape and dimensions conform to REHAU technical drawings within specific tolerances and that the consistent quality of material used is resistant to the effects of weathering and sunlight for a period of ten years for white profile and five years for any foiled profile in accordance with standard test procedures.

Frames outside the maximum sizes recommended by REHAU are not covered by guarantee.

Accessories

All materials are sourced on the basis that they will meet the standards demanded by Windowmate and that their performance will be consistent with the requirements of our high quality products.

Hardware

Hardware is guaranteed in line with those given by our suppliers. Please note that brass products by their nature will tarnish and as such carry no warranty against discoloration.

Guarantees only apply if goods are installed in accordance with REHAU's technical manual and are reported in accordance with our standard trading terms and conditions.



REHAU

Authorised Partner

Quick Reference Product Guide

REHAU 703 Tritec (60mm System)

Casements/Tilt and Turns/Arches and Angles/Residential Doors/French Doors/Stable Doors
Selection of Accessories/Cills/Baypoles/Clip on's etc.
Part-Sculptured Casement Sash is an available option.

REHAU TOTAL70C (70mm Chamfered System)

Casements/Tilt and Turns/Arches and Angles/Residential Doors/French Doors/Stable Doors
Selection of Accessories/Cills/Baypoles/Clip on's etc.
Part-Sculptured Casement Sash is an available option.

REHAU TOTAL70S (70mm Fully Sculptured System)

Casements/Tilt and Turns/Arches and Angles/Residential Doors/French Doors/Stable Doors
Selection of Accessories/Cills/Baypoles/Clip on's etc.

REHAU TOTAL70R (70mm)

Fully Reversible windows.

Stable Doors

REHAU Tritec 60mm = fully operating split system and tilt and turn system.
REHAU TOTAL70C = fully operating split system and tilt and turn system.
REHAU TOTAL70S = fully operating split system and tilt and turn system.

Patio Doors

High specification patio doors with exclusive features for security and durability.

Composite Doors

Available in a range of colours and styles.

Vertical Sliders

The authentic replacement for traditional sash windows with the additional benefits and conveniences of modern uPVC. Choice of systems available.

Conservatory Roofs

Edwardian roofs/Victorian roofs/Lean-to/Porches

Standard Colours

REHAU Tritec 60mm = White, Mahogany, Mahogany on White, Oak, Oak on White.
REHAU TOTAL70C = White, Rosewood, Rosewood on White, Mahogany, Mahogany on White, Black, Black on White, Cream, Oak, Oak on White, Anthracite and Anthracite Grey on White.
REHAU TOTAL70S = White, Rosewood, Rosewood on White, Oak and Oak on White.

Non-standard colours

Extensive range of other foiled products are also available e.g. White foil, Anthracite Grey and Irish Oak. Please contact us for further information on additional lead times and prices.

Gasket Colours

60mm = Grey, White, Oak and Brown

70mm = Black

Quick Reference Product Guide

Window Handle Colours (including Tilt and Turn)

All quality in line handles in White, Black, Premium Gold (shiny), Gold (anodised), Chrome and Satin Silver.

Door Handle Colours

Available in White, Black, Premium Gold (shiny), Gold (anodised), Chrome and Satin Silver.

Door Hinges

3D quality flag hinge in White, Brown, Chrome, Gold and Black. Also available in Satin (different hinge).

Trickle Vents

2000mm, 3000mm, 4000mm and 6000mm in White, Brown, Black, Cream, Oak and Anthracite Grey.

Window Locks

1. Standard Espagnolette
2. Twin Cam Espag option
3. Shootbolt option.



Door Locks

Resi Door Lock: 1 hook, 4 roller as standard, and 3 hook, 4 roller as security option.

French Casement Lock: Resi door with shootbolts top and bottom to master and slave door.

Hinges/Friction Stays

Range of hinges available with a heavy duty option.

Outer Frame Choices - multi-chamber available and being phased in across TOTAL70c and TOTAL70s foil range. However, 3 chamber 72mm outer frame is standard for Dessian/REHAU 70mm doors (other than in special foils).

REHAU Tritec 60mm = 52mm, 62mm, 75mm

REHAU TOTAL70C and TOTAL70s = 52mm, 62mm, 72mm (62mm & 72mm only on Black, Black on White, Cream, and Anthracite Grey on White).

Cill Types

Stub: 150mm (only available in Black, Cream, Black on White, Anthracite Grey on White), 180mm, and 225mm (White Tritec only).

Bead Types

REHAU Tritec 60mm = ogee and angle

REHAU TOTAL70C = contour and angle

REHAU TOTAL70S = contour.

Door Thresholds

52mm, 62mm, 72mm and 75mm REHAU aluminium low threshold (Gold and Silver) and Stormguard aluminium low threshold (Gold and Silver) with detachable ramp.

Glass Thickness

REHAU Tritec 60mm = 24mm and 28mm bead

REHAU TOTAL70C = 28mm and 44mm bead

REHAU TOTAL70S = 28mm and 44mm bead

Corner Finish

White = Grooved finish is standard

Foil and Foil on White = Knifed

Technical Information

We have detailed below some key technical information relating to ordering.

Sash Dimensions

| Tritec (60mm) | Maximum | | Minimum | |
|---------------|---------|--------|---------|--------|
| | Width | Height | Width | Height |
| Side Hung | 900 | 1300 | 350 | 250 |
| Top Hung | 900 | 1100 | 226 | 250 |

| TOTAL70 (70mm) | Maximum | | Minimum | |
|----------------|---------|--------|---------|--------|
| | Width | Height | Width | Height |
| Side Hung | 900 | 1500 | 350 | 250 |
| Top Hung | 1200 | 1200 | 226 | 250 |

*Any sash outside of these limits will not be covered under guarantee.

The sash cover on any frame is 8mm for windows and doors. The central space between French casement doors is 6mm.

Ventilation (if ordered)

Our frames are ventilated using surface-mounted trickle vents and external hoods through either the opening sash profile, universal outer profile to the head or head extension piece.

Expansion and Contraction

uPVC windows, regardless of manufacturer, expand and contract. Therefore, all frames must have a given tolerance, normally 5mm all round, to allow for such expansion and contraction.

Under no circumstances should our frames be ripped down or planed to suit openings if too tight.

Provided the frames are surveyed and fitted correctly as per REHAU's technical manual, the expansion and contraction will not detract from the performance or visual appearance of the installed frames.

Minimum Weld Capabilities

The minimum distance from weld to weld varies with the design of the frame, profile width and the sequence in which the welds are carried out. The dimensions are always taken from the outside of the outer frame to the centre line of the transom/mullion, or from centre line to centre line of the transom/mullion.

If you are in doubt about feasibility, please submit dimensioned drawings and we will provide a definite answer. However, as a guideline, the minimum fixed light weld is 375mm and the minimum drop of a transom with an angled head is 150mm (depending on the pitch of the head).

Technical Information

Tritec (60mm)

Sill Profiles



Sill 85mm



Sill 150mm

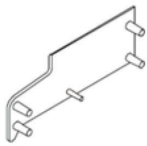


Sill 180mm

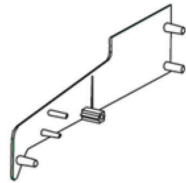


Sill 225mm

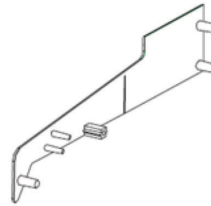
Sill End Caps



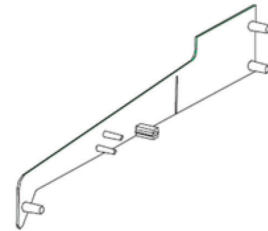
Sill End Cap 85mm



Sill End Cap 150mm

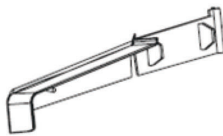


Sill End Cap 180mm



Sill End Cap 225mm

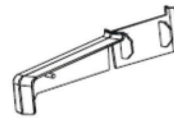
Couplers for 150 Sill



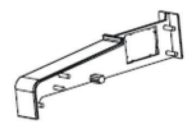
90° Coupler



135° Coupler

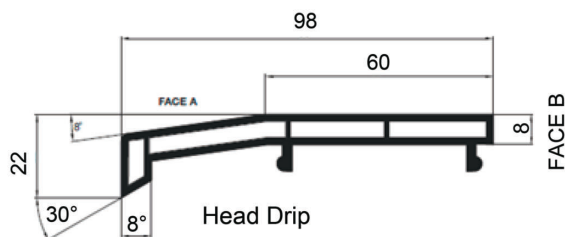


150° Coupler

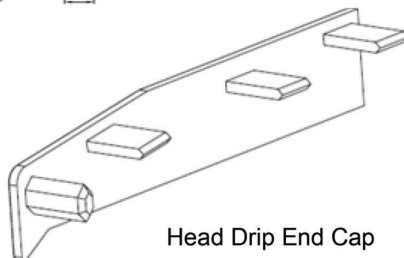


180° Coupler

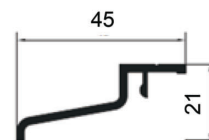
Ancillary Profiles



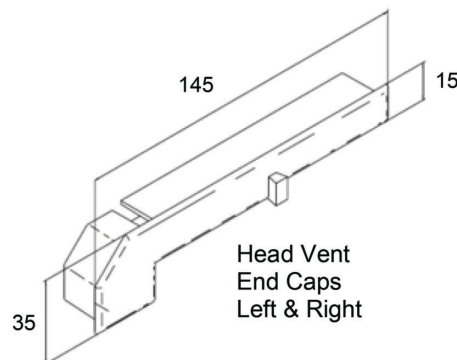
Head Drip



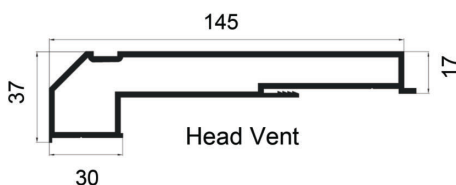
Head Drip End Cap



Eurogroove Infill



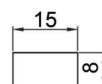
Head Vent End Caps Left & Right



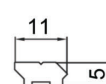
Head Vent



Closed Captive Bead



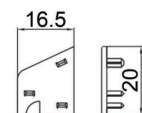
Weather Sealing Tape



Aluminium Weather Rail Connector



Weather Rail

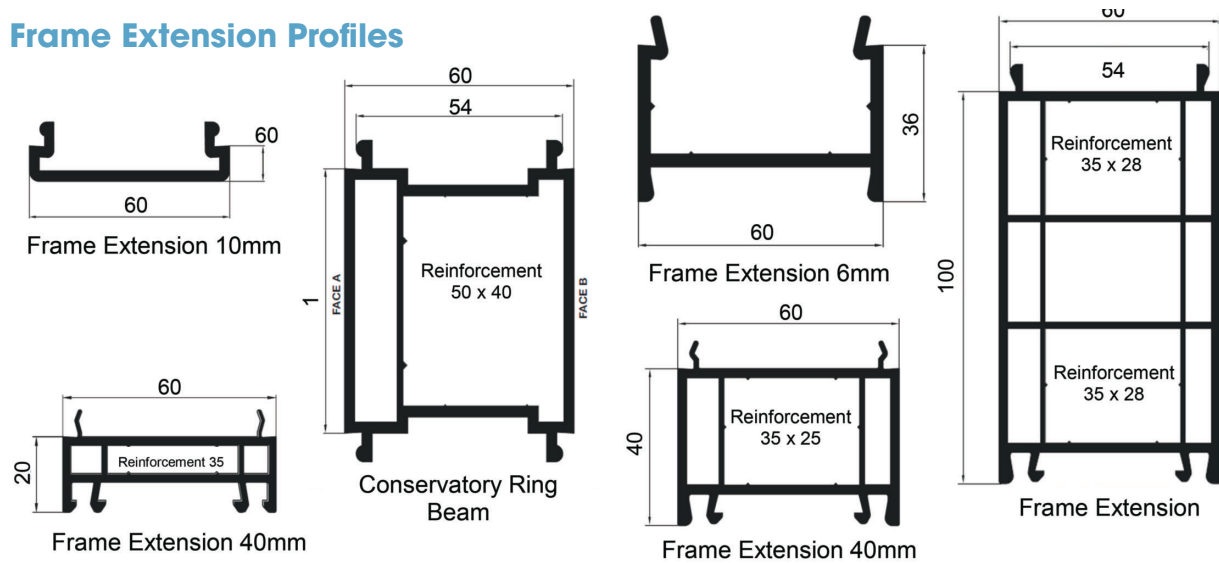


Weather Rail End Cap

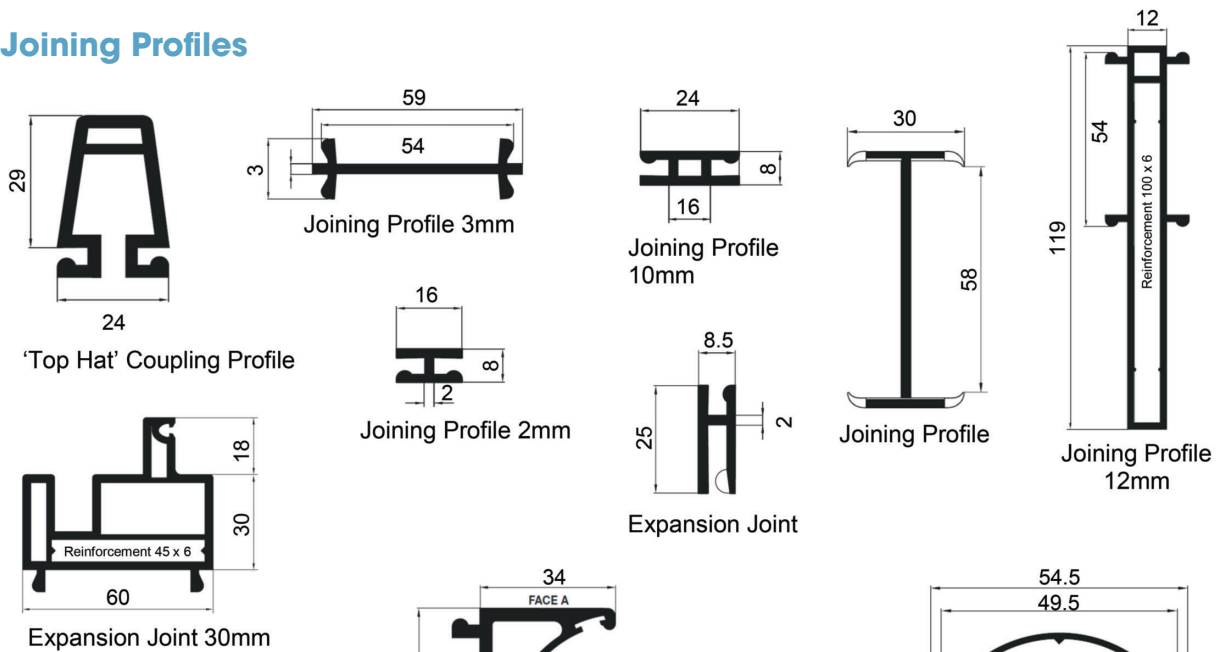
Technical Information

Tritec (60mm)

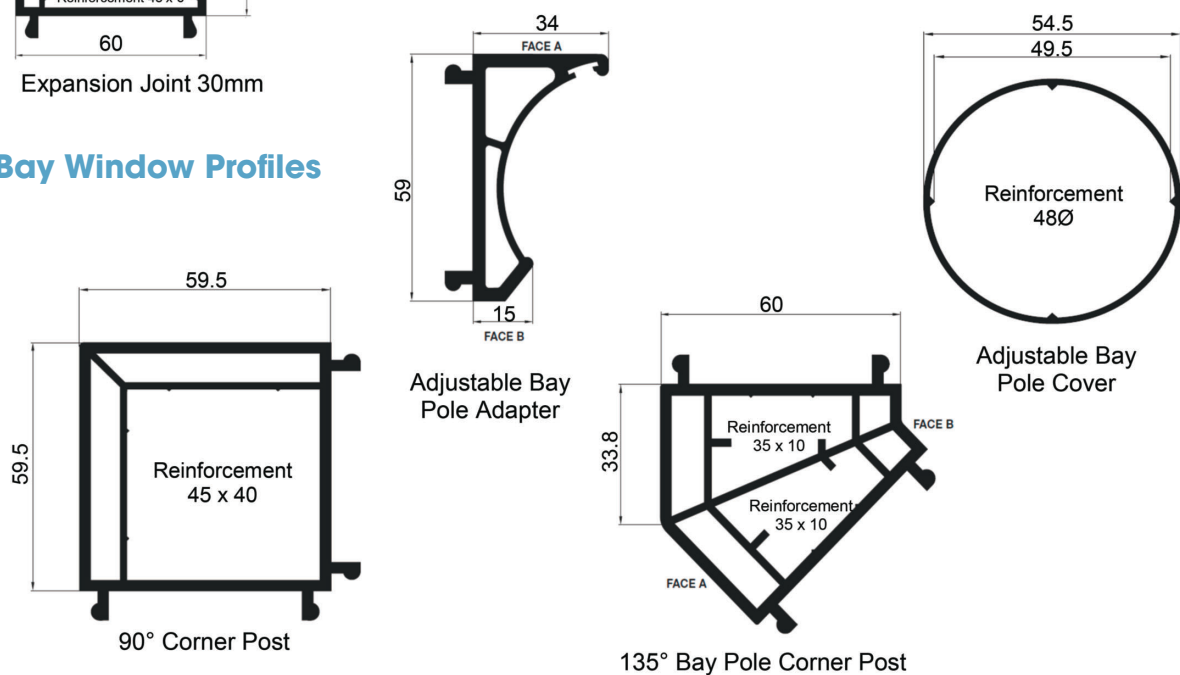
Frame Extension Profiles



Joining Profiles



Bay Window Profiles

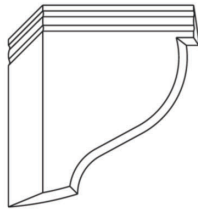


Technical Information

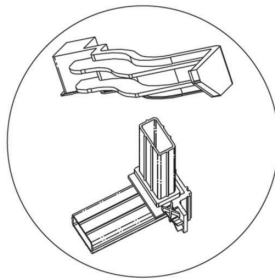
TOTAL70 (70mm)

REHAU TOTAL70 ANCILLARIES

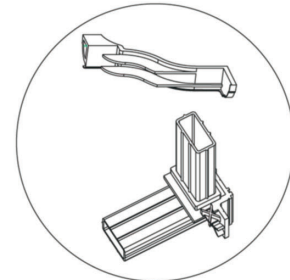
Sash Horns



Screw on Casement
Sash Horn

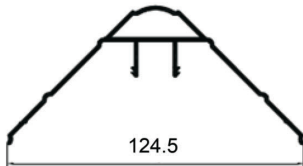


Run Through Sash Horn Kits for
Chamfered Suite. Includes Left/Right Sash
Horn Endcaps and Left/Right

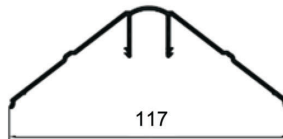


Run Through Sash Horn Kits for
Sculptured Suite. Includes Left/Right
Sash Horn Endcaps and Left/Right

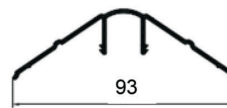
Bay Poles



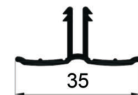
90° Corner Post PVC
External Cap



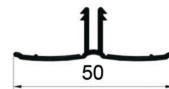
100° - 120° PVC
External Cap



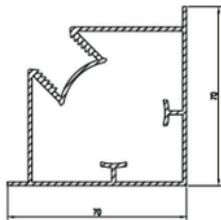
120° - 150° &
135° - 160°
PVC External Cap



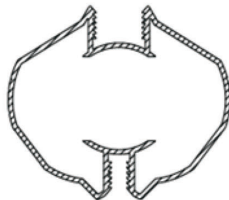
Standard
Internal Cap



Large
Internal Cap



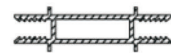
90° Corner Post Aluminium



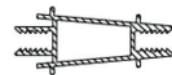
100° - 120° Aluminium



120° - 150° Aluminium

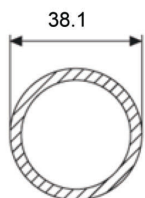


180° Aluminium

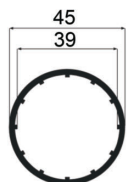


170° Aluminium

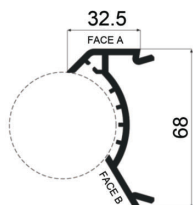
Baypole Connectors - Variable Angle Bay Poles



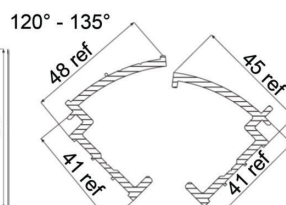
Baypole
(Aluminium
Tube)



Variable
Angle
Baypole

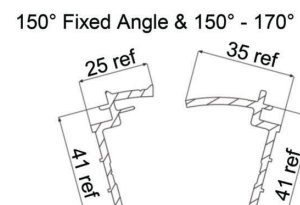


Baypole Adapter



Baypole 1
120° - 135°

Baypole 2
120° - 135°



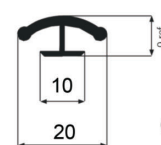
Baypole 3
150°

Baypole 4
150°

Internal Butt Baypoles - Variable Angle

Baypole Connectors

Inside



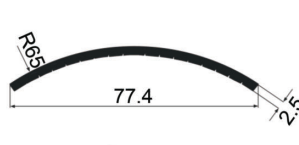
Bay Cover
Profile

Inside



Cover Profile

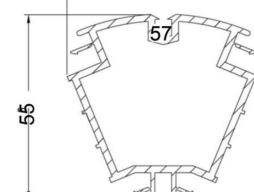
Outside



Bay Cover Trim

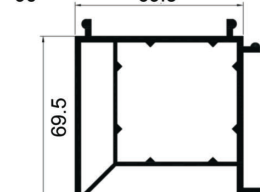
Fixed Angle Baypoles

135°



135° Fixed Angle

90°



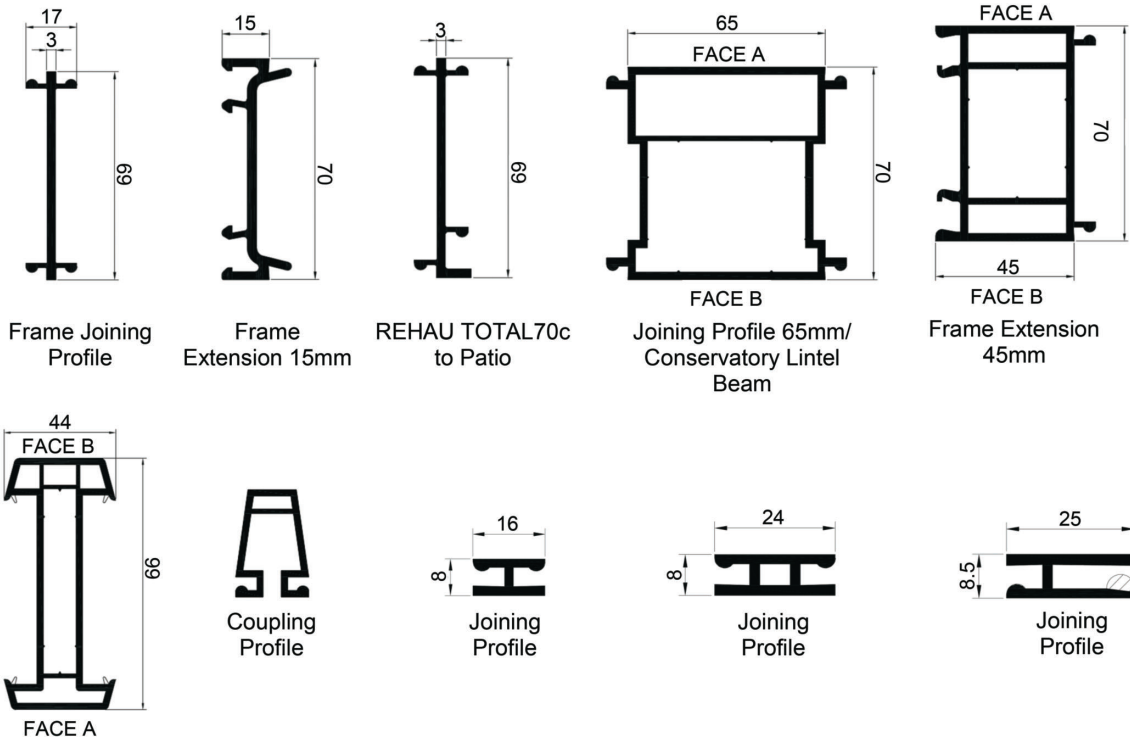
90° Cornerpost

Technical Information

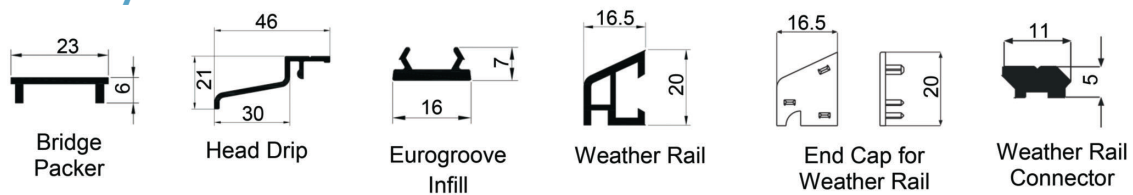
TOTAL70 (70mm)

REHAU TOTAL70 ANCILLARIES

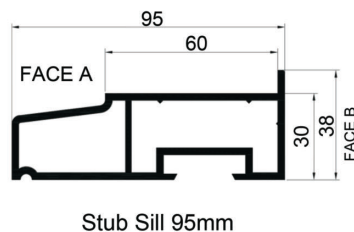
Frame Coupling/Extension Profiles



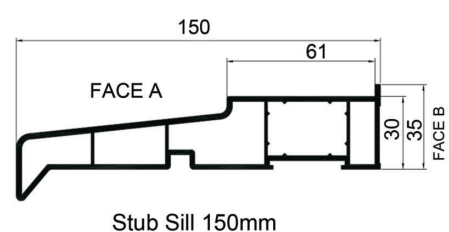
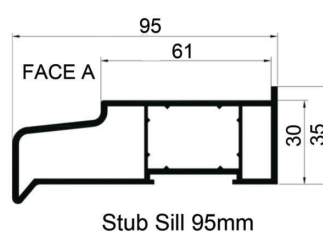
Ancillary Profiles



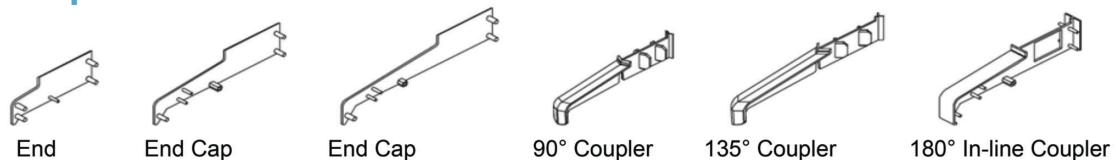
Sill Profiles



Deep Nosed Sill Profiles



End Caps

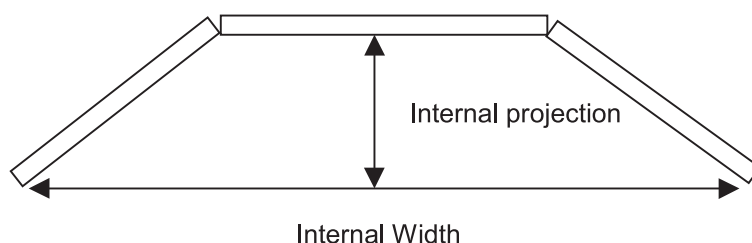


Variable Bay Pole Deductions Tritec - 60mm System

When the REHAU baypole and adapter is used to form a splayed bay, deductions have to be made to allow for the baypole assembly. The amount of deduction varies with the internal angle of the bay. The chart below should be used to determine the finished frame sizes for the construction of the bay.

Bay Survey Procedure

- Take all dimensions from the inside of the bay.
- Internal dimensions must be frame sizes and not brick reveal to brick reveal dimensions.
- Take bay angles with an angle finder or simply use an adjustable square and a protractor.
- If necessary, a scale drawing can be done to check the dimensions and angles against the internal width and projection.
- These dimensions and angles would give the internal edge of a welded cill, if required.



Calculation of Bay Frame Element Sizes

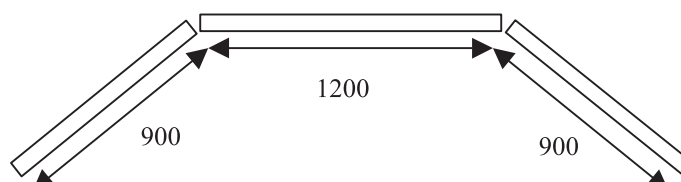
The following deductions should be taken off the inside sizes to give the individual frame element sizes. Where the frames go from wall to baypole, the deduction should be taken off once. Where the frame goes from baypole to baypole, the deduction should be taken off twice.

These deductions apply to internal sizes only.

| Angle Degrees | 90 | 95 | 100 | 105 | 110 | 115 | 120 | 125 | 130 | 135 | 140 | 145 | 150 | 155 | 160 | 165 | 170 | 175 | 180 |
|------------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Deduction mm | 9 | 12 | 14 | 16 | 17 | 19 | 21 | 22 | 24 | 25 | 26 | 28 | 29 | 30 | 31 | 33 | 34 | 35 | 36 |

Example

Taking angles as 135 degrees



Bay sides are $900 - 25\text{mm} = 875\text{ mm}$ frame size
 Bay centre is $1200 - 50\text{mm} = 1150\text{ mm}$ frame size

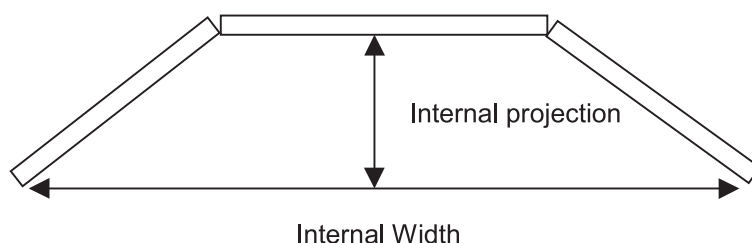
NB: At all times the uPVC baypole must be reinforced and under no circumstances must any part of the bay form part of a load bearing structure. If uPVC cills are used then the steel reinforcement must pass through the cill and be seated onto a load bearing steel plate at each end.

Variable Bay Pole Deductions TOTAL70 - 70mm System

When the REHAU baypole and adapter is used to form a splayed bay, deductions have to be made to allow for the baypole assembly. The amount of deduction varies with the internal angle of the bay. The chart below should be used to determine the finished frame sizes for the construction of the bay.

Bay Survey Procedure

- Take all dimensions from the inside of the bay.
- Internal dimensions must be frame sizes and not brick reveal to brick reveal dimensions.
- Take bay angles with an angle finder or simply use an adjustable square and a protractor.
- If necessary, a scale drawing can be done to check the dimensions and angles against the internal width and projection.
- These dimensions and angles would give the internal edge of a welded cill, if required.



Calculation of Bay Frame Element Sizes

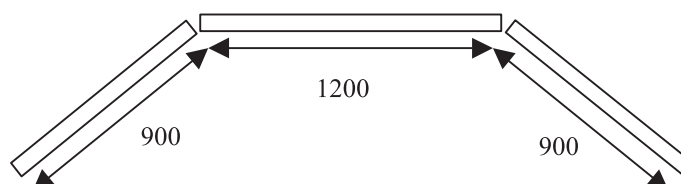
The following deductions should be taken off the inside sizes to give the individual frame element sizes. Where the frames go from wall to baypole, the deduction should be taken off once. Where the frame goes from baypole to baypole, the deduction should be taken off twice.

These deductions apply to internal sizes only.

| Angle Degrees | 102 | 105 | 110 | 115 | 120 | 125 | 130 | 135 | 140 | 145 | 150 | 155 | 160 | 165 | 170 | 175 | 180 | 185 |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Deduction mm | 2 | 4 | 6 | 8 | 10 | 13 | 15 | 17 | 18 | 20 | 22 | 24 | 25 | 27 | 29 | 30 | 32 | 35 |

Example

Taking angles as 135 degrees

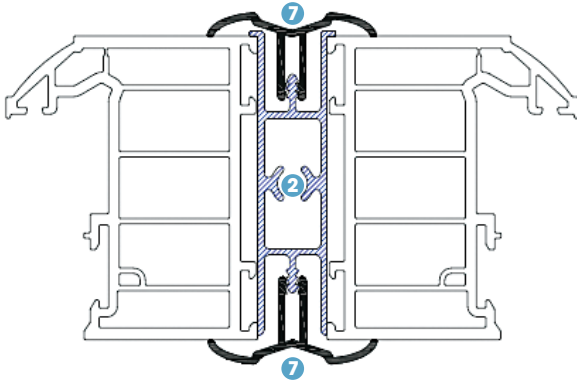


Bay sides are $900 - 17\text{mm} = 883\text{ mm}$ frame size
 Bay centre is $1200 - 34\text{mm} = 1166\text{ mm}$ frame size

NB: At all times the uPVC baypole must be reinforced and under no circumstances must any part of the bay form part of a load bearing structure. If uPVC cills are used then the steel reinforcement must pass through the cill and be seated onto a load bearing steel plate at each end.

New Aluminium Coupling Products

APS16 - 16mm Coupler



16mm Coupler

This is the same principal as the Window Widget version in that there is an aluminium coupler (marked 2 in drawing to the left) with an internal and external cover profile (marked 7). The trims are available in all our standard colours. The aluminium is in 4500mm lengths and the trims are in 6000mm lengths.

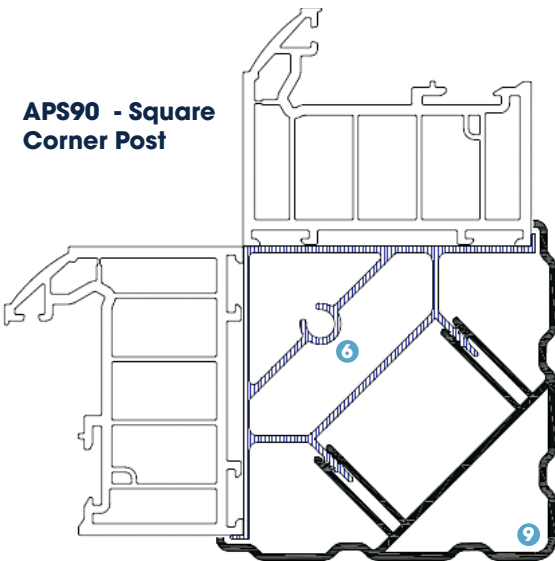
Input as below for S706 or Edge:

| Method | Description | Colour | Qty | Unit | Length (mm) |
|-------------|------------------------|--------|-----|----------|-------------|
| Cut To Size | 16mm Coupler (706) | | 1 | Length @ | 2200 |
| Cut To Size | Coupler PVC Trim Small | White | 2 | Length @ | 2200 |

Input as below for Tritec (the aluminium coupler is different but the covers are the same):

| Method | Description | Colour | Qty | Unit | Length (mm) |
|-------------|--------------------------------------|--------|-----|----------|-------------|
| Cut To Size | 16mm In-Line Aluminium Coupler (703) | | 1 | Length @ | 2100 |
| Cut To Size | Coupler PVC Trim Small | White | 2 | Length @ | 2100 |

APS90 - Square Corner Post



Square Baypole

Again, this is the same principal as the Window Widget version in that there is an aluminium baypole (marked 6 on drawing to the left) with a cover profile (marked 9). The outer trim is available in our standard colours and both the outer and the baypole are in 6000mm lengths.

As with the Window Widget version, this only suits S706 of Edge systems (not Tritec 60mm)

Input as below:

| Method | Description | Colour | Qty | Unit | Length (mm) |
|-------------|---------------------------|--------|-----|----------|-------------|
| Cut To Size | 90 Square Corner Post Ali | | 1 | Length @ | 1500 |
| Cut To Size | Corner Post Trim | White | 1 | Length @ | 1500 |

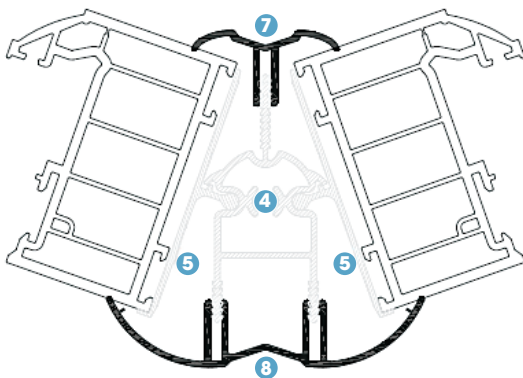
New Aluminium Coupling Products

Variable Angle Baypole

The main difference on this product is that Window Widgets used to have two options:

- a) 90-120 degrees
- b) 125-170 degrees

APS120 Variable Adaptor
APS120A Variable Bay Adaptor

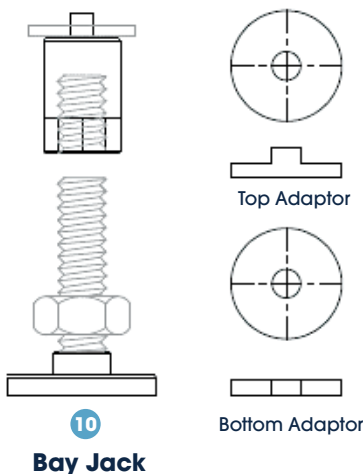


With the new system there is only one option 125-170 degrees. (If a customer has a bay with angles between 90 and 125, the option available is the Rehau variable baypole).

This product consists of the baypole itself (marked 4 on the picture to the left) with 2 adaptors (marked 5). There is an external cover (marked 8) and an internal trim which is the same as the trim for the 16mm coupler (marked 7).

Input as below: (remember there are 4 parts to this products as opposed to 3 on the old Window Widget version).

| Method | Description | Colour | Qty | Unit | Length (mm) |
|-------------|--------------------------|--------|-----|----------|-------------|
| Cut To Size | Variable Bay Ali | | 1 | Length @ | 1800 |
| Cut To Size | Variable Bay Adapter Ali | | 2 | Length @ | 1800 |
| Cut To Size | Bay Outer PVC Trim | White | 1 | Length @ | 1800 |
| Cut To Size | Coupler PVC Trim Small | White | 1 | Length @ | 1800 |



Bay Jacks

Bay Jacks are available for the new system and fit both the Square Corner Post and the Variable Angle baypole.

Input as below with the appropriate quantity:

| Method | Description | Colour | Qty | Unit | Length (mm) |
|--------|-------------|--------|-----|------|-------------|
| Items | Bay Jack | | 2 | - | - |

Windows

Typical Window Designs

Fixed Lights



Casements One Sash



Casements Two Sash



Casements Three +



Tilt and Turn



Reversible



Glass Sizes & Reinforcement

Glass Sizes

Our glass sizes are calculated to allow for a 5mm clearance around the unit.

Reinforcement

Unless otherwise requested, all frames are reinforced to comply with the REHAU technical specification.

| | | |
|------------------|---|--|
| Foiled | - | All frames fully reinforced. |
| Foiled on White | - | All frames fully reinforced. |
| White: Casements | - | Outer frames over 2500mm reinforced. |
| | - | Transoms/mullions over 650mm reinforced. |
| | - | Sashes over 800mm reinforced. |
| Tilt & Turns | - | Outer frames over 2500mm reinforced. |
| | - | Transoms/mullions over 650mm reinforced. |
| | - | Sashes over 850mm reinforced. |
| Doors | - | Outer door frame verticals reinforced. |
| | - | Sashes all four sides reinforced. |
| | - | Vertical mullions reinforced. |
| In-line Patios | - | All frames fully reinforced. |

Glass

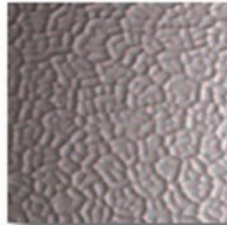
Privacy Glass



Satin



White Translucent



Arctic



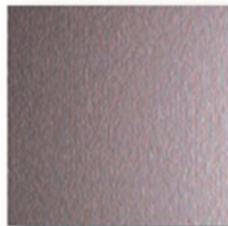
Autumn



Chantilly



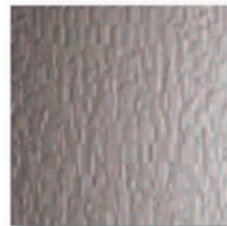
Charcoal Sticks



Contora



Cotswold



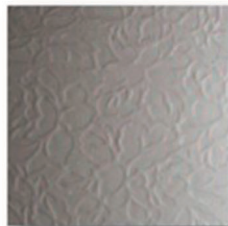
Digital



Everglade



Flemish



Florielle



Mayflower



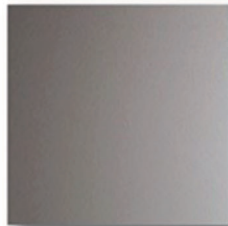
Minster



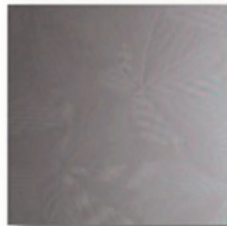
Oak



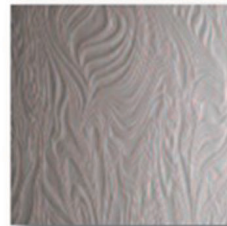
Pelerine



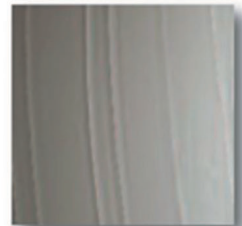
Stippolyte



Sycamore



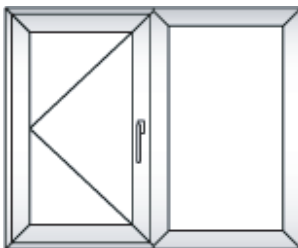

Taffeta



Warwick

Typical U-Value Calculation

| | |
|---|----------------------------|
| REHAU Total 70c | 26/02/2019 |
| Proj Title / Co. Name | WINDOWMATE |
| Project Ref | WINDOWMATE |
| System | REHAU Total 70c |
| Frame Type | Intermediate (62mm) |
| Sash Type | T Sash (75mm) |
| Mullion | Slim Z (69mm) |
| Reinforcement Type | 5 Chamber - Std |
| Glazing Manufacturer | Eg. Guardian or Pilkington |
| Glazing Unit | Float/Argon/Climaguard A |
| Spacer Bar | Thermobar + Butyl |
| Centre Pane U | 1.22 |
| Air Leakage (Based On Testing To BS6375) | 0.21 |
| Thermal Transmittance | 1.39 |

| U VALUE | |
|---|---|
| WINDOWMATE BELFAST WINDOWMATE | |
| 26/02/2019 | |
| FRAME SUMMARY REHAU Total 70c Intermediate (62mm) T Sash (75mm) | |
| GLASS SUMMARY Float/Argon/Climaguard A | |
| WINDOW STYLE  | OVERALL WINDOW SIZE WIDTH = 1230 HEIGHT = 1480 |
| THERMAL TRANSMITTANCE U VALUE (W/m²K) | 1.39 |
|  | |
| <small>This U Value Calculation has been carried out in accordance to BS EN 10077-1 : 2006, and in accordance to Building Regulations Part L 1b 2010 Section 4:20.</small> | |
| <small>All calculations are provided with the best of knowledge and with the correct information at the date of issue shown at the end of this label.</small> | |
| <small>Working conditions and use under conditions for which the product was intended and over which we have no influence exclude any claim resulting from our information. We recommend that a check is made as to whether the REHAU product is suitable for the envisaged purpose. Application, use and processing of the products is carried out beyond the scope of our control and are therefore carried out exclusively at your own responsibility. If liability should still apply, then this is regulated, in the case of all damage, by our "Terms and Conditions of Delivery and Payment". This applies also for any claims on warranty, where the warranty applies to the consistent quality of our products as per our specification.</small> | |
| REHAU Ltd | Feb 2013 |

This U Value Calculation has been carried out in accordance to BS EN 10077-1 : 2006, and in accordance to Building Regulations Part L 1b 2010 Section 4:20.

U-Value / WER Calculator



The REHAU U-Value/WER Calculator is an easy to use online tool which will demonstrate the energy efficiency of REHAU systems. The program has been designed to calculate the thermal transmittance (U Value) of windows and doors following the principals of BS EN ISO 10077-1 using REHAU window profiles. The results are approved and accepted by FENSA and Certass.

The calculator also provides a Window Energy Rating (WER) based on the conventions and methods outlined in the Approved Document L. The results are approved and accepted for use with the BFRC Simplified Energy License Scheme (S.E.L.) and with the Certass Thermal Rating Register.

The program will allow the user to demonstrate compliance of installed windows and doors with Building Regulation Part L following the guidance rules as set out in L1B section 4.20.

Use of the BRE 443 Standard Window will enable the user to calculate the U value and the Window Energy Rating (WER) value based on the guidelines as described in the Building Regulations Part L.

The other options available will enable the user to calculate U values for specific sizes and styles of windows and doors. Further information can be found in REHAU's user guide.

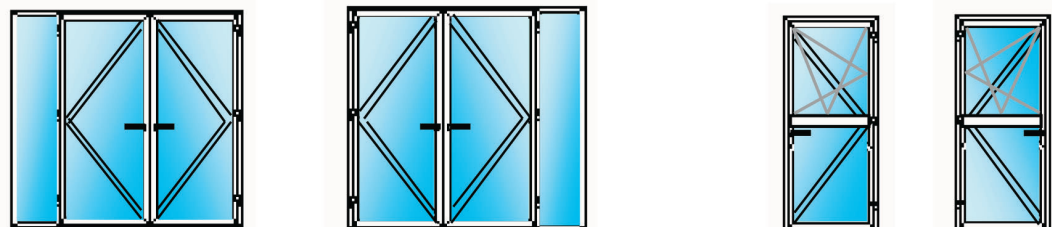
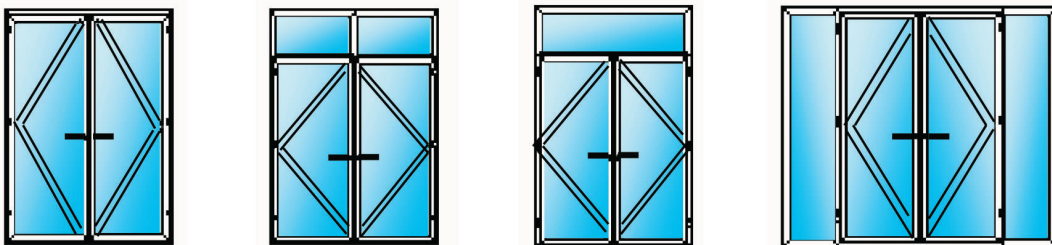
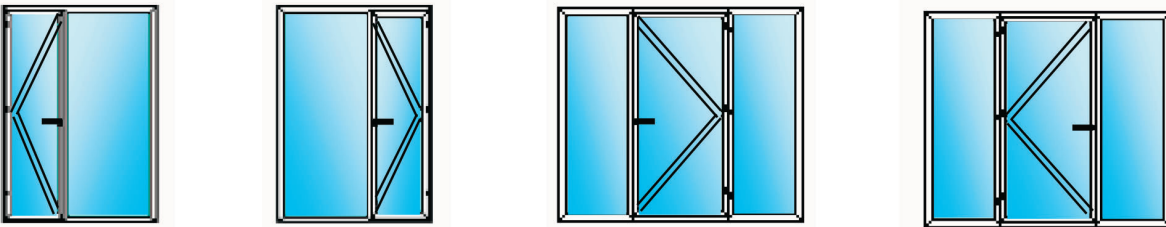
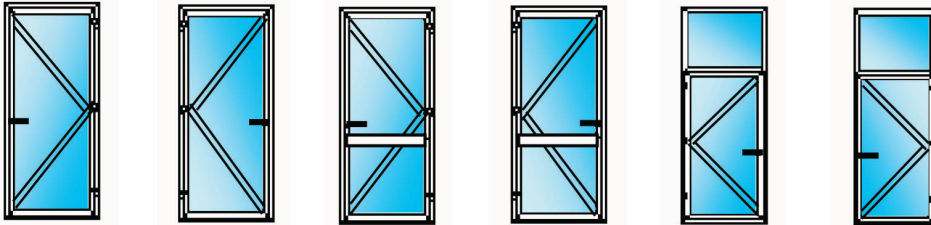
There is also a Quick Check Calculator to enable the user to quickly compare results between different REHAU systems and glass types and to assess the cost saving that could be achieved when purchasing a window without compromising on the energy efficiency.

The online energy efficiency calculators can be found at:
<http://www.rehauanswers.co.uk/Home/EnergyRating>



uPVC Doors

Typical Door Designs



(Tilt & Turn Stable Door)

Panel Offering

For more information on the panels for each of the door designs above, please contact:

Northern Ireland

New World Developments **Tel: 028 2563 2200**

Profile Developments **Tel: 0808 243 0859**

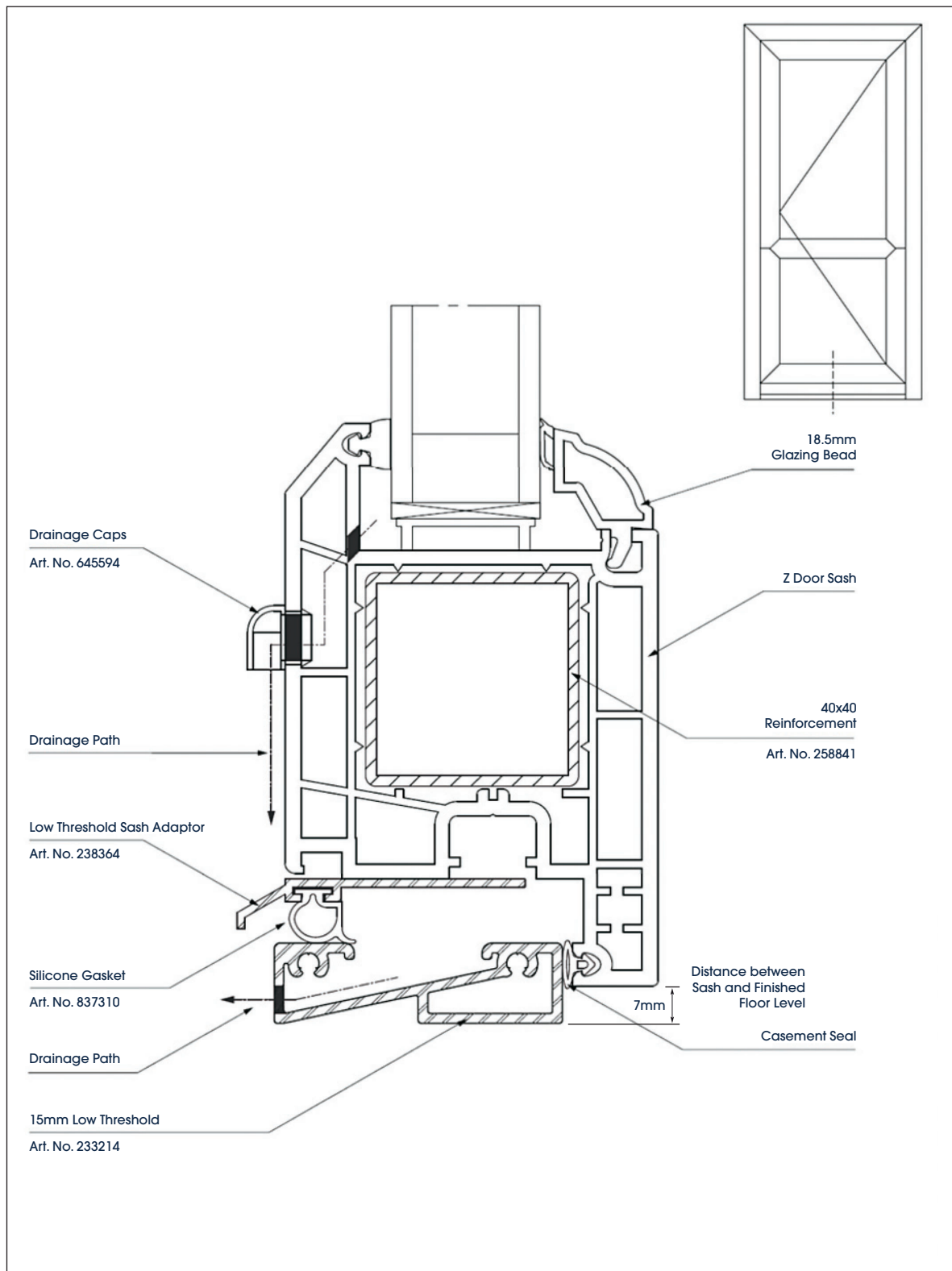
Scotland

New World Developments **Tel: 028 2563 2200**

Virtuoso **Tel: 0191 410 9333**

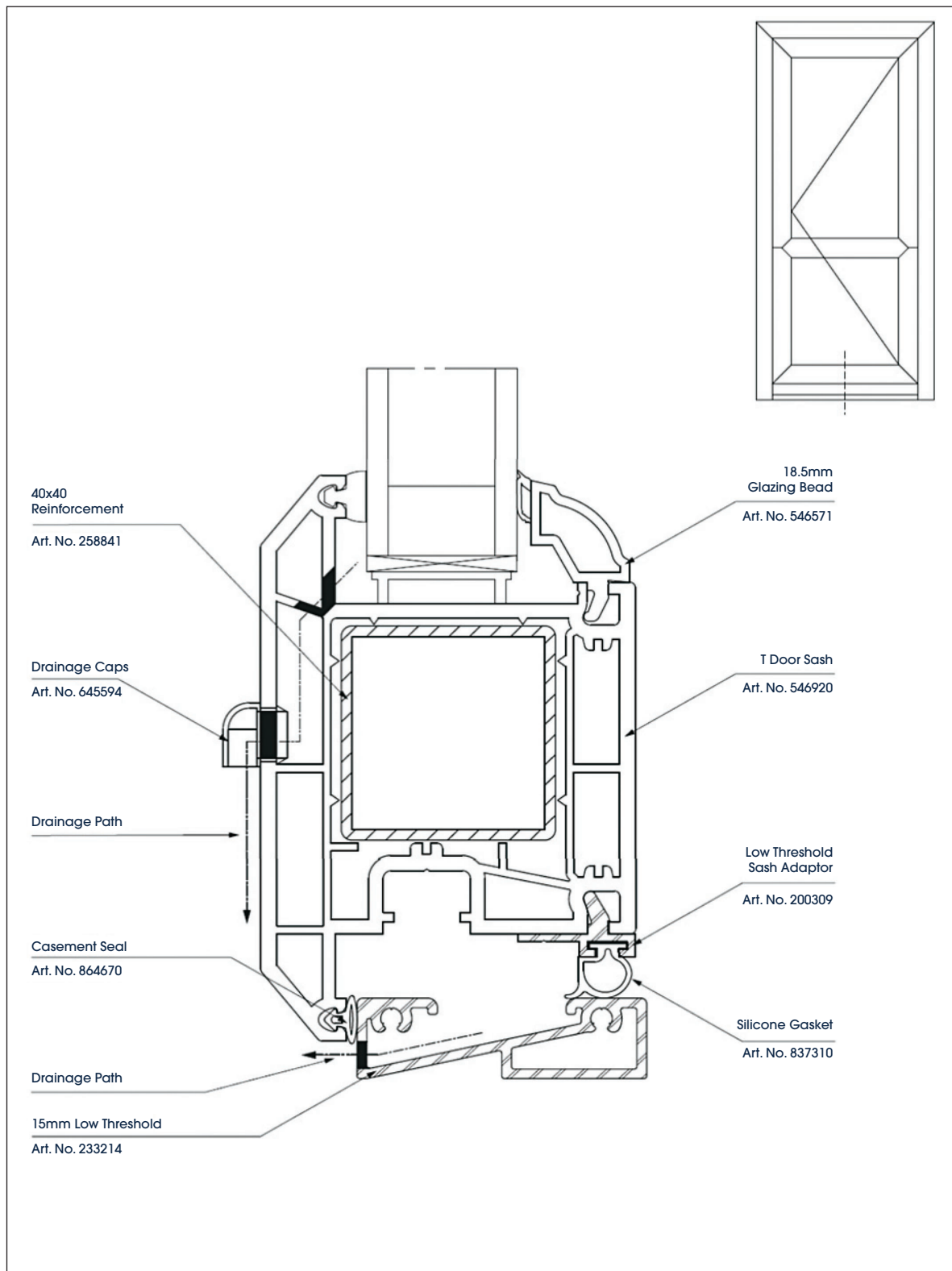
REHAU Threshold

REHAU S706 WINDOW AND DOOR SYSTEM RESIDENTIAL DOOR, **INWARD** OPENING - 15MM LOW THRESHOLD



REHAU Threshold

REHAU S706 WINDOW AND DOOR SYSTEM RESIDENTIAL DOOR, **OUTWARD** OPENING - 15MM LOW THRESHOLD



Stormguard Threshold

PROLINE AM - Low Threshold System

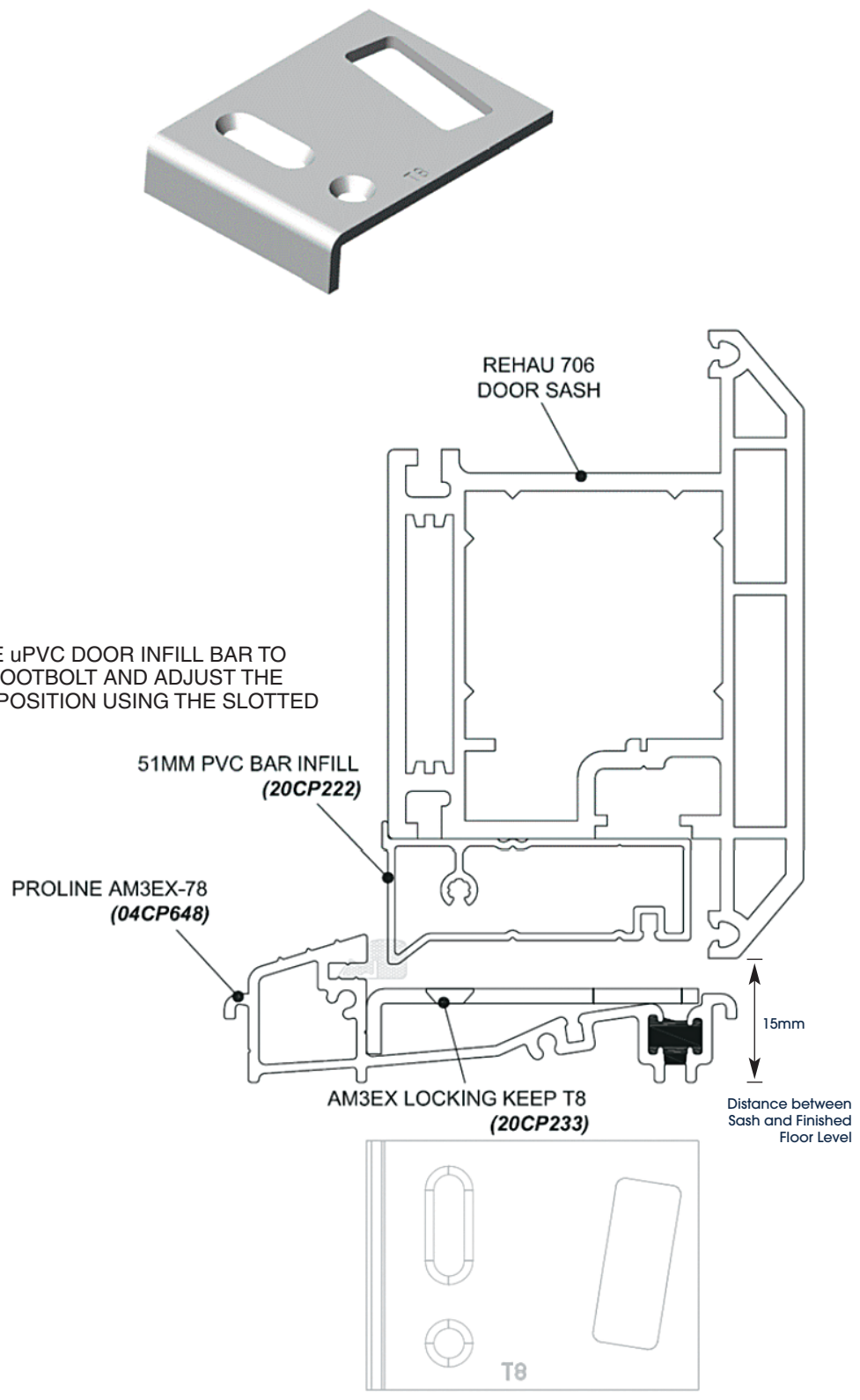
Scale 1:1 | LOCKING KEEP T8 - REHAU 706 - AM3EX-78

Code: 20CP233



Regency Mill, Chester Road, Macclesfield, Cheshire, SK11 8HR
Tel: 01625 613311 Fax: 01625 614434

NOTCH OUT THE uPVC DOOR INFILL BAR TO ACCEPT THE SHOOTBOLT AND ADJUST THE LOCKING KEEP POSITION USING THE SLOTTED SCREW HOLE.



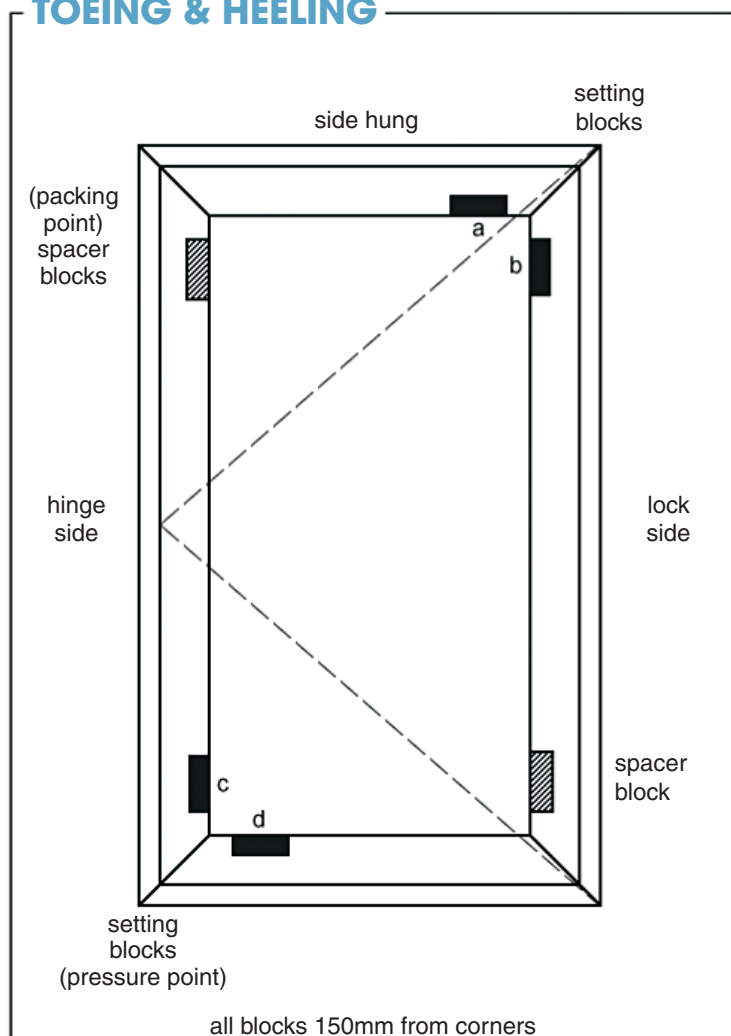
Toeing & Heeling

The most common problem with doors not operating correctly is caused by lack of toeing and heeling of the glass.

What is toeing and heeling?

uPVC doors are heavy and although the dead weight is supported on the hinge side when it is opened, there is nothing on the lock side to support the weight. Without the procedure of toeing and heeling, the door will drop on the handle side (sooner or later). To stop a door dropping, the glass itself has to be braced diagonally, corner to corner, by the insertion of plastic packers slipped in the gap between the glass and uPVC sash stile under the beading. On the hinge side, the packers go at the bottom corner, whilst on the lock side, the packers go at the top (opposite) corner.

TOEING & HEELING



How to Toe and Heel

1. Fit glazing packers of the correct thickness on the bottom so to achieve an equal gap above and below the double glazed unit or panel in A.
2. Repeat on the side in position B.
3. Insert packers at position C to bring the unit or panel parallel to the hinged side.
4. Repeat at position D by lifting the sagging side of the sash to achieve an equal gap above and below the unit.
5. Finally, fill in the opposing corners and insert packers behind any locking points and hinges.

NOTE: A little silicone sealant will help to hold vertical packers in place whilst beading.

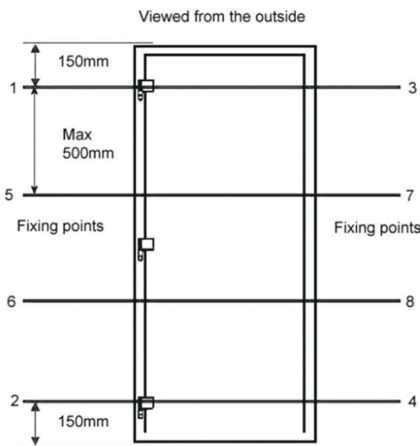
Suggested Maintenance:

It is recommended that every 6 months a light application of spray type grease be used into the hook and latch apertures of both lock and keep, along with a light spraying of WD40 type lubricant into both sides of the locking cylinder.

Multi-Point Lock and uPVC Door Fitting Guide

Many problems experienced today with prefabricated door-sets can be due to incorrect installation. Below are some tips to enhance operation and performance of the door-set, thereby helping to promote years of trouble free operation:

NB. The code of practice for installation as issued by the British Plastics Federation should be complied with at all times.



1. Check that there is a 10mm difference between the overall door size and the aperture that it is to go into. It is recommended that there is a 5mm gap all the way around to allow for expansion, contraction and installation packing.

2. Place a 5mm packer on the underside of the door frame on each side to lift the frame (it may be beneficial to remove the sash from the frame to enable the first side to be fixed).

3. Using appropriate frame fixings, fix the hinge side of the door-set first. Ensure the fixings are correctly spaced. Fixings should be placed at least 150mm from any welded joint. A minimum of 4 fixings on each side. We recommend they are equally spaced.

4. Ensure the door frame is plumb in both planes and pack behind the fixings. Make sure (with a long straight edge) that there is no bow. Again, in both planes, increase or decrease the packing as necessary.
5. Ensure the bottom of the door frame is level and then pack the lock side as required.
6. Re-hang the sash if previously removed, but only insert a frame fixing at the top side of the door frame at this stage.
7. Bring the door sash to the almost closed position to see if the door is in 'twist'. With the door almost closed this can be determined by looking down the door edge to see if the gap is consistent. If necessary, make an adjustment to the frame fixings and packers to realign the door.
8. Alternatively, to ensure that the "cover" is correct, close the door completely and mark three lines with a pencil where the sash overlaps the frame. Open the door and measure from the edge of the frame to the pencil lines. This measurement is the "cover". If the measurement is different for each of the pencil lines it could indicate that the door is not installed correctly and the lock system may not function satisfactorily.
9. The correct "cover" is essential to ensure the correct function of the locking system and to maintain optimum weather performance.
10. As a general rule there should be a 4mm gap between the lock face-plate and the uppermost face of the keep. Typical cover for uPVC systems is usually between 6-8mm.
11. Should the outer frame be straight (using a straight edge) but the cover is different in the middle to the top and bottom, it will be necessary to pack the glazing accordingly. If a mid-rail is fitted, it maybe necessary to adjust the centre hinge to achieve this.
12. After making the above adjustments, finally fit the remaining frame fixings on the lock side, ensuring an even gap over the entire length of the door and again checking there is no bow in the frame (with a long straight edge).

Troubleshooting Guide

| Symptom | Cause | Solution |
|--|---|--|
| Not able to close the door. | Sash sagging. | Check glazing i.e. toeing and heeling. |
| | Keeps not positioned correctly. | Check lock and keep centre lines and hook pocket positions. |
| | Insufficient air gap/cover. | Check air gap/cover. |
| Sash clashes with centre keep. | Glazed excessively centrally. | Re-glaze. |
| | Central hinge needs adjusting. | Adjust back central hinge. |
| Not able to throw the lock fully or lock stiff in operation. | Inconsistent air gap/cover. | Firstly check if lock operates correctly in the first open position. If so, check air gap/cover, lock and keep centre lines and hook pocket positions. |
| | Excessive air gap/cover. | As above. |
| | Door in "wind" or twist. | Reposition outer frame. |
| | Incorrectly adjusted keeps. | Adjust compression cams and/or keeps. |
| Hooks "throating" on hook pockets. | Sagging sash. | Re-glaze. |
| | Incorrectly adjusted keeps. | Adjust compression cams and/or keeps. |
| Handle does not retract the latch from the inside. | Incorrectly handed split follower function. | Remove lock from sash and re-hand lock as per lock handing instructions. |
| | Faulty handle spindle. | Check spindle by removing handle. |
| French door sash clashes with outer frame. | Bowed head or sill. | Repack outer frame true and straight. |
| | Shootbolts protruding in open position. | Reconnect start position of shootbolts. |
| | Door glazed too high or low. | Re-glaze. |
| Sash draughty. | Wrong lock to keep positioning. | Adjust compression cams and/or keeps. |
| | Faulty gasket. | Check gasket. |

Composite Doors

virtuoso
DOORS BY DESIGN

Typical Door Designs



Aston Carlton Solid Carlton Two Carlton Four Chapleton A1 Chapleton A2 Chapleton A3



Chapleton C2 Chapleton C4 Chilton One Chilton Three Claston Clifton



Chapleton Four Hinge Chapleton Four Handle Chapleton Three Chapleton D4 Grill Chapleton B3 Chapleton FG Chapleton Solid



Crafton Elton Harton Malton Stable A1 Stable A2 Stable B1



French Carlton Solid French Chapleton Three French Chapleton FG French Harton

Composite Doors

Typical Door Designs

Note: The Apeer door is not available from Windowmate Cumbernauld

Apeer

Traditional Collection



Contemporary Collection



Modo Door Collection



Composite Doors

Typical Door Designs

Note: Palladio door is not available from Windowmate Cumbernauld

*The
Palladio
Door Collection*



Ancillaries Stock List

| | | | | |
|---|---|---|--|---|
|  |  |  |  |  |
| Glass Measuring Gauge | 410 Thor Hammer | Glazing Shovel | Gasket Mitre Shears | Xpert 10-in-1 Chisel Knife |
|  |  |  |  |  |
| Heavy Duty Skeleton Gun | Professional PU Foam Gun | Sash Jammer White & Brown | Locksmith Multi-tool | Hammer Ends Grey & Orange |
|  |  |  |  |  |
| Soudal Comfort Foam | Soudal Gun Cleaner | Soudal Silicone White, Clear, Teak. Other Colours available. | Soudal Silirub LMN | Soudal Gun Grade Foam |
|  |  |  |  | Other accessories available on request. |
| Soudal Stayfresh | Soudal PVCu Frame Cleaner | Soudal Glass Cleaner | Winbag Air Wedge | |



Windowmate™

WINDOWS & DOORS

Windowmate™

WINDOWS & DOORS

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Boucher Place, Belfast BT12 6HT

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south.belfast@windowmateupvc.com

Windowmate East Belfast

Unit 20 Carrowreagh Business Park,
Carrowreagh Road, Dundonald BT16 1QQ

Tel: 028 9048 6013

east.belfast@windowmateupvc.com

Windowmate Fermanagh

36 Drumgoon Road, Maguiresbridge,
Co. Fermanagh BT94 4PB

Tel: 028 6772 1148

fermanagh@windowmateupvc.com

Windowmate Cumbernauld

11 Tollpark Road, Wardpark Industrial Estate,
Cumbernauld G68 0LW

Tel: 01236 735999

scotland@windowmateupvc.com

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www.windowmateupvc.com

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