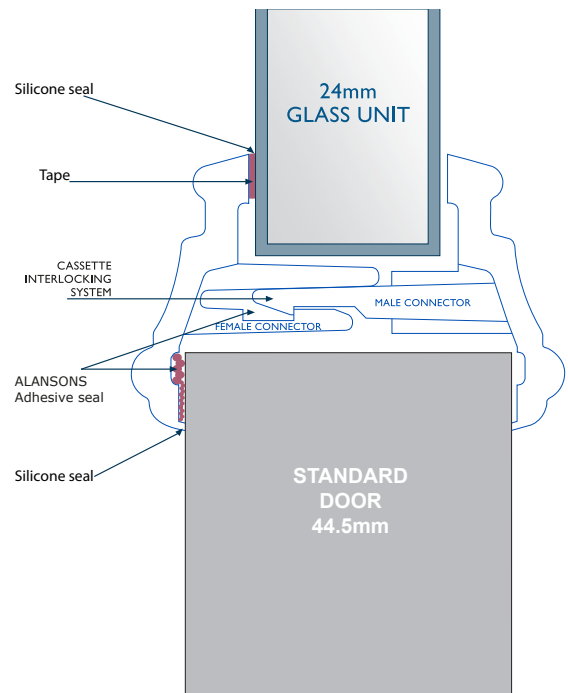


## Technical *Specification Guide*

Composite Door Collection





# Contents

## Technical Data Sheets 1.0 – 1.8 Door Specifications:

Technical Data Sheet 1.0 Door Styles and Glass Sizes	Page 1-3
Technical Data Sheet 1.1 Door Slab Colour Guide	Page 4
Technical Data Sheet 1.2 Door Slab Colours	Page 5
Technical Data Sheet 1.3 Frame Colours	Page 6
Technical Data Sheet 1.4 Minimum and Maximum Sizes	Page 7
Technical Data Sheet 1.5 Door Handing	Page 8
Technical Data Sheet 1.6 Cross Section of Door Detail	Page 9
Technical Data Sheet 1.7 Cross Section Lock and Hinge	Page 10
Technical Data Sheet 1.8 Door Opening and Clearance Calculations	Page 11

## Technical Data Sheets 2.0 – 2.2 Frame Options:

Technical Data Sheet 2.0 SC1 Sidelight Option	Page 13
Technical Data Sheet 2.1 SC2 Sidelight Option	Page 14
Technical Data Sheet 2.2 SC3 Sidelight Option	Page 15

## Technical Data Sheets 3.0 – 3.3 Threshold Options:

Technical Data Sheet 3.0 PVC Threshold Options	Page 17
Technical Data Sheet 3.1 FS15 Threshold Options	Page 18
Technical Data Sheet 3.2 Extended Low Aluminium Threshold Options	Page 19
Technical Data Sheet 3.3 OUM 2 TB Threshold Option	Page 20

## Technical Data Sheets 4.0 – 4.7 Locking Systems:

Technical Data Sheet 4.0 Winkhaus Trulock (as standard)	Page 22-23
Technical Data Sheet 4.1 Winkhaus Trulock Dimensional Details	Page 24
Technical Data Sheet 4.2 Winkhaus Cobra Lock (Open Out Doors)	Page 25
Technical Data Sheet 4.3 GU Secury Slam Locks	Page 26
Technical Data Sheet 4.4 Winkhaus Stable Door Lock	Page 27
Technical Data Sheet 4.5 Winkhaus Stable Lock Cross Section	Page 28
Technical Data Sheet 4.6 YS170 Lock	Page 29
Technical Data Sheet 4.7 Winkhaus AV3e Lock	Page 30

## Technical Data Sheets 5.0 – 5.3 Hinges:

Technical Data Sheet 5.0 Features of an SFS Hinge	Page 32
Technical Data Sheet 5.1 SFS Hinge Adjustment	Page 33
Technical Data Sheet 5.2 Features of a Challenger Hinge	Page 34
Technical Data Sheet 5.3 Challenger Hinge Adjustment	Page 35

## Technical Data Sheets 6.0 – 6.6 Miscellaneous:

Technical Data Sheet 6.0 Door Installation and Maintenance Guidelines	Page 37
Technical Data Sheet 6.1 Secured by Design Guidelines	Page 38
Technical Data Sheet 6.2 Glass Options	Page 39-41
Technical Data Sheet 6.3 Re-glazing a Cassette Instructions	Page 42
Technical Data Sheet 6.4 Furniture Options	Page 43
Technical Data Sheet 6.5 Measuring a Bowed Door	Page 44
Technical Data Sheet 6.6 Thermal Movement	Page 45

# Technical Data Sheets 1.0 - 1.8

## *Door Specifications*

# Technical Data Sheet 1.0

## Door Styles and Glass sizes

### Classic Collection

The glazing apertures accommodate a 24mm thick unit.  
Sight Line - 15mm from Glass Size on all door styles.



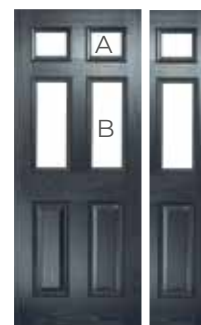
Composite Four Solid



Composite Four Two and Side  
Cut out: 231 x 940mm  
Glass: 203 x 912mm



Composite Six Solid



Composite Six/Four and Side  
Cut out A: 232 x 182mm  
Cut out B: 236 x 579mm  
Glass A: 202 x 154mm  
Glass B: 207 x 550mm



Composite Six/Two  
Cut out: 232 x 182mm  
Glass: 202 x 154mm



Composite Half Moon Three  
Radius A: 279  
Glass A: 550 x 254mm  
Cut out B: 236 x 579mm  
Glass B: 207 x 550mm



Composite Half Moon  
Radius A: 279  
Glass: 550 x 254



Composite Half Moonray  
Radius A: 279  
Glass: 550 x 254mm



Composite Half  
Cut out: 585 x 940mm  
Glass: 558 x 912mm



Composite Half Georgian  
Cut out: 585 x 940mm  
Glass: 558 x 912mm



Composite Half Arched  
Cut out: 586 x 941mm  
Glass: 558 x 912mm



Composite Half Arched Georgian  
Cut out: 585 x 940mm  
Glass: 558 x 912mm



Composite Crown  
Cut out: 608 x 357mm  
Glass: 583 x 332mm

Please note - Georgian style is made from one piece of glass with a duplex spacer bar and not individual pieces.

# Technical Data Sheet 1.0

## Door Styles and Glass sizes

### Cottage Collection

The glazing apertures accomodate a 24mm thick unit.  
Sight Line - 15mm from Glazz Size on all door styles.



Cottage  
Solid and Side



Rustic  
Cottage Solid



Rustic/Stable  
Small Rectangle  
Cut out: 181 x 229mm  
Glass: 154 x 202mm



Cottage Small  
Rectangle and Side  
Cut out: 181 x 229mm  
Glass: 154 x 202mm



Rustic Cottage/  
Cottage/Stable Diamond  
Cut out: 295 x 381mm  
Glass: 266 x 347mm



Rustic Cottage/  
Stable Rectangle  
Cut out: 216 x 496mm  
Glass: 190 x 469mm



Cottage Rectangle  
and Side  
Cut out: 216 x 496mm  
Glass: 190 x 469mm



Rustic Three  
Rectangles  
Cut out: 181 x 229mm  
Glass: 154 x 202mm



Cottage Three  
Rectangles and Side  
Cut out: 181 x 229mm  
Glass: 154 x 202mm



Cottage Four  
Rectangles and Side  
Cut out: 181 x 229mm  
Glass: 154 x 202mm



Cottage Eclipse  
R Cut out: 292 x 279mm  
Glass: 279 x 254mm



Cottage Mid  
and Side  
Cut out: 231 x 940mm  
Glass: 203 x 912mm



Cottage Twin  
and Side  
Cut out A: 231 x 940mm  
Cut out B: 231 x 604mm  
Glass A: 203 x 912mm  
Glass B: 203 x 574mm



Cottage Long  
Rectangle and Side  
Cut out: 230 x 1683mm  
Glass: 203 x 1653mm

# Technical Data Sheet 1.0

## *Door Styles and Glass sizes*

### Contemporary Bohemia Collection

The glazing apertures accommodate a 24mm thick unit.  
Sight Line - 15mm from Glazz Size on all door styles.



Select Solid



Select Wishbone Solid



Bohemia Solid and Side



Bohemia Small Rectangle and Side  
Cut out: 181 x 229mm  
Glass: 154 x 202mm



Bohemia Diamond  
Cut out: 295 x 381mm  
Glass: 266 x 347mm



Bohemia Rectangle and Side  
Cut out: 216 x 496mm  
Glass: 190 x 469mm



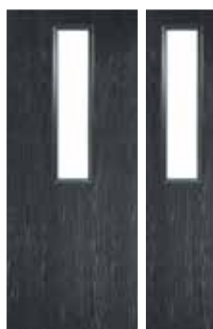
Bohemia Three Rectangles and Side  
Cut out: 181 x 229mm  
Glass: 154 x 202mm



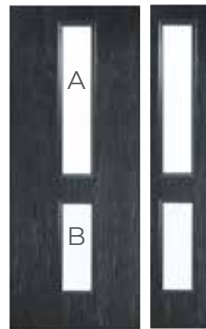
Bohemia Four Rectangles and Side  
Cut out: 181 x 229mm  
Glass: 154 x 202mm



Bohemia Eclipse  
R Cut out: 292 x 279mm  
R Glass: 279 x 254mm



Bohemia Mid and Side  
Cut out: 231 x 940mm  
Glass: 203 x 912mm



Bohemia Twin and Side  
Cut out A: 231 x 940mm  
Cut out B: 231 x 604mm  
Glass A: 203 x 912mm  
Glass B: 203 x 574mm



Bohemia Long Rectangle and Side  
Cut out: 230 x 1683mm  
Glass: 203 x 1653mm



Select Long Rectangle  
Cut out: 230 x 1683mm  
Glass: 203 x 1653mm



# Technical Data Sheet 1.1

## *Door Slab Colour Guide*

### Generally –

Slabs are white to the inside as standard. Any colour to the inside will attract a surcharge.

- **Standard** slab colours are White, Blue, Red, Black, Green.
- **Standard Plus** colours are Anthracite Grey, Chartwell Green, Rosewood, Oak. These attract a small surcharge.
- **Premium** colours are spray painted RAL colours. These attract a surcharge.

### Exceptions –

- **Select slab** – Only available as a premium spray both sides regardless of colour (even white). The grooves are added post manufacture therefore every slab must be spray finished on both sides.
- **Crown slab** – Only available as white both sides. Any other colour will mean a premium spray.
- **Cottage slab** – is not available with two Standard Plus colours, namely Anthracite Grey or Chartwell Green. These options would have to be premium sprayed.
- **Stable Door** – as per Cottage slab above.
- **Rustic Cottage slab** – is not available in three Standard colours, namely Red, Blue or Green. These colour options would have to be premium sprayed. Not available Rosewood or Oak both sides, one side would have to be stain and grained, surcharge applies.
- **Feature Side Panel slabs** – None are available with two Standard Plus colours, namely Anthracite Grey or Chartwell Green. These colour options would have to be premium sprayed.



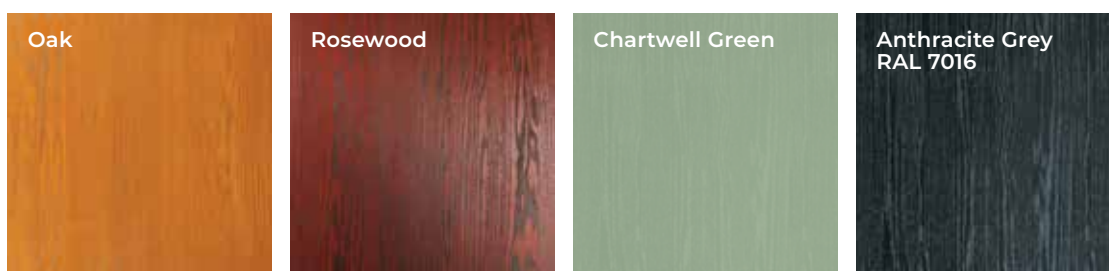
# Technical Data Sheet 1.2

## *Door Slab Colours*

### Standard Colours



### Standard Plus Colours



### Premium Colours



Due to the limitations of printing processes, colour illustrations should be used for guidance only.

# Technical Data Sheet 1.3

## Frame Colours

### Standard Frame Colours

**Eurocell (Chamfered)**  
**Liniair (Sculptured)**

White Smooth (as standard)

### Foiled Frame Options

**Eurocell (Chamfered)**

Anthracite Grained External/ Smooth White Internal  
(Available for open out doors but may incur a surcharge and longer lead time)

Black Brown Grained External/ Smooth White Internal  
(Not a match to the slab) (Available for open out doors but may incur a surcharge and longer lead time)

Rosewood/Oak Grained External/ Smooth White Internal  
(Not a match to the slab)

Rosewood/Oak Grained Both Sides  
(Not a match to the slab) (Available for Feature Sides but may incur a surcharge and longer lead time)

**Liniair (Sculptured)**

White Grained Both Sides  
(Not available grained one side)

Anthracite Grained External/ Smooth White Internal

Black Brown Grained External/ Smooth White Internal  
(Not a match to the slab)

Chartwell Green Grained External/ Smooth White Internal

Rosewood/Oak Grained External/ Smooth White Internal  
(Not a match to the slab)

Rosewood/Oak Grained Both Sides  
(Not a match to the slab) (Not available for Feature Sides)

### Sprayed Frame Options

**Eurocell (Chamfered)**  
**Liniair (Sculptured)**

Any Colour on Smooth External / Smooth White Internal

Any Colour on Smooth Both Sides

Any Colour on Grained External / Smooth White Internal

Any Colour on Grained Both Sides

# Technical Data Sheet 1.4

## *Minimum and Maximum Sizes*

Width (mm)		Classic Collection (Ex. Crown)	Composite Crown	Bohemia Selects	Bohemia/ Cottage Collection	Stable Doors	Feature Sides
Standard Chamfered/ Eurocell	Min	850	882	850	850	850	448
	Max	1024	1024	1020	1020	1018	468
Slimline Chamfered/ Eurocell	Min	820	852	820	820	820	422
	Max	994	994	990	990	988	442
Standard Sculptured/ Liniair	Min	834	866	834	834	834	436
	Max	1008	1008	1004	1004	1002	456

Height (mm)		Standard PVC	Slimline PVC	Extended Low Aluminium MDS25	Universal Low Aluminium FS15
Standard Chamfered/ Eurocell	Min	2031	2016	1992	1984
	Max	2131	2116	2092	2084
Slimline Chamfered/ Eurocell	Min	N/A	2001	1977	1969
	Max	N/A	2101	2077	2069
Standard Sculptured/ Liniair	Min	2015	N/A	1984	1976
	Max	2115	N/A	2084	2076

Door and Fanlight (mm)		Standard PVC	Slimline PVC	Extended Low Aluminium MDS25	Universal Low Aluminium FS15
Standard Chamfered/ Eurocell	Min	2211	2196	2172	2164
Slimline Chamfered/ Eurocell	Min	N/A	2206	2182	2174
Standard Sculptured/ Liniair	Min	2217	N/A	2186	2178

+30mm to height if supplied with a cill

+30mm to minimum size if Long Rectangle style of door with a letterplate

Minimum size of (mm)	Standard Chamfered	Slimline Chamfered	Standard Sculptured
Sidelight	250	210	250
Sidelight with Midrail	300	270	300
Sidelight with Midrail & Letterplate	400	400	470
Fanlight	215	225	225

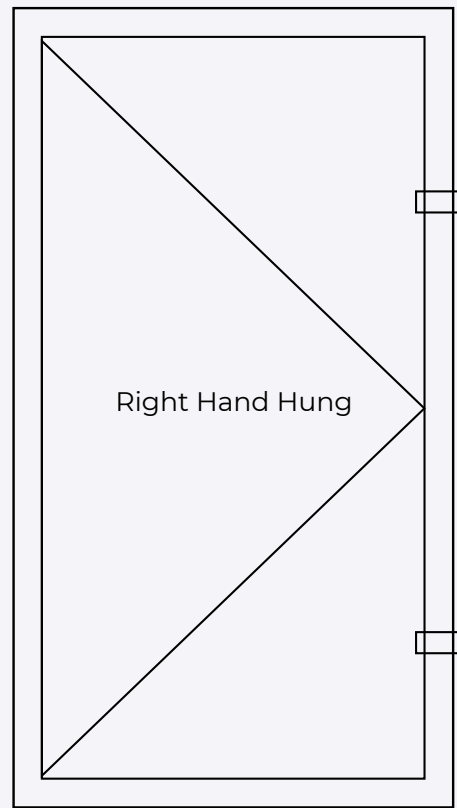
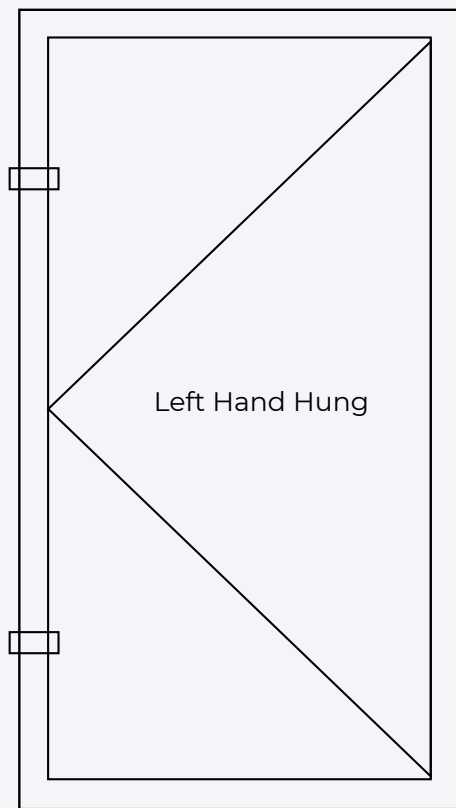
Sizes include 10mm coupler - Eurocell

Sizes include 20mm coupler - Liniair

# Technical Data Sheet 1.5

## *Door Handing*

Viewed from outside - Open in

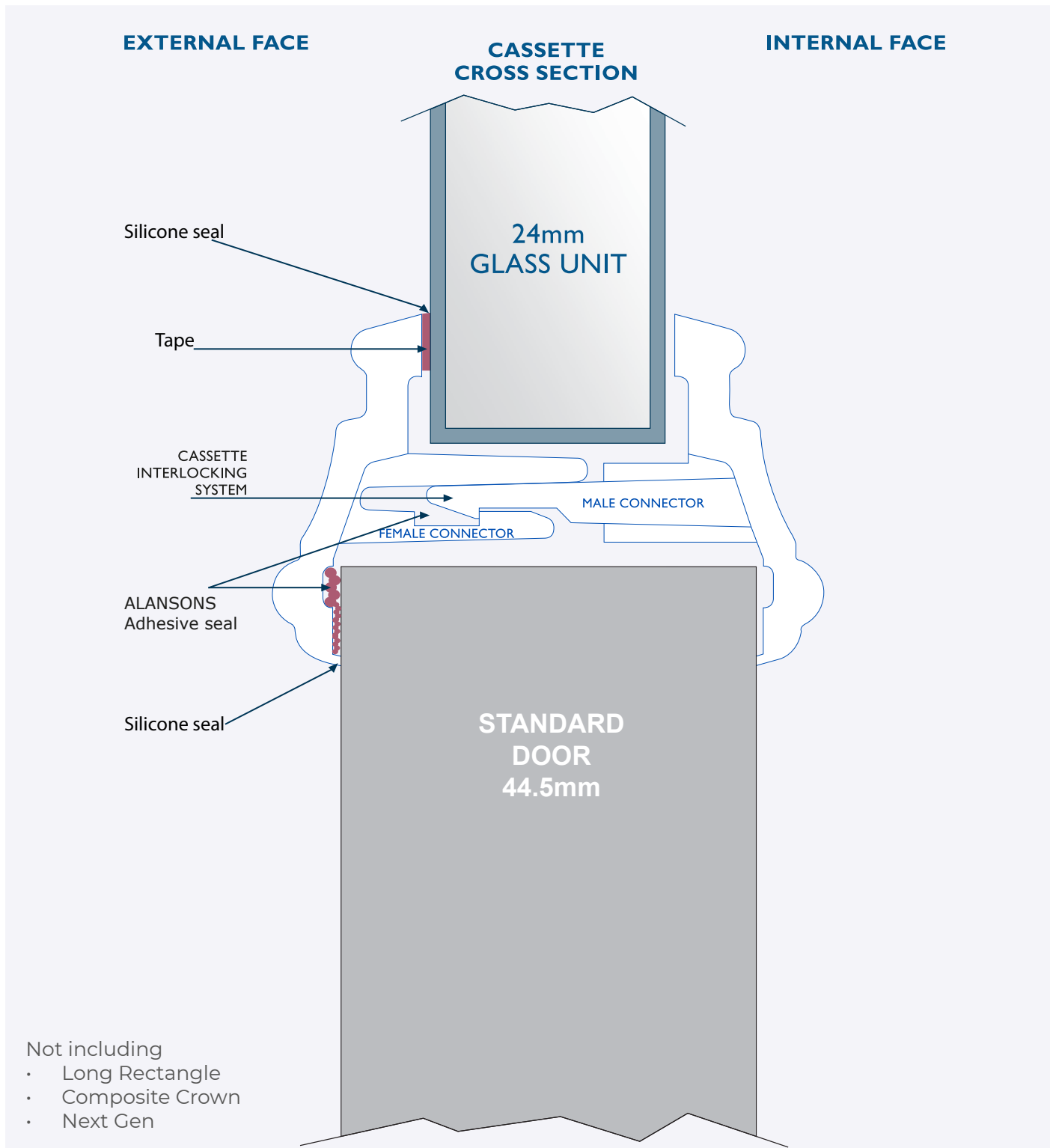


### Notes

This drawing denotes the handing of all door sets manufactured by Hurst Doors.

# Technical Data Sheet 1.6

## *Cross Section of Door Detail*

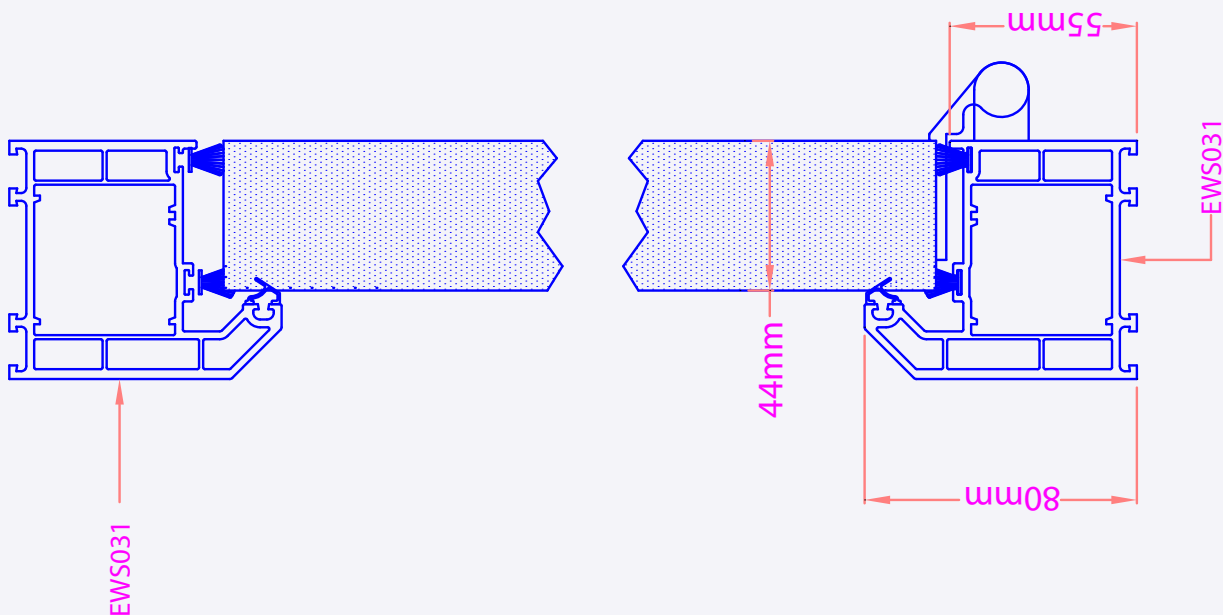


# Technical Data Sheet 1.7

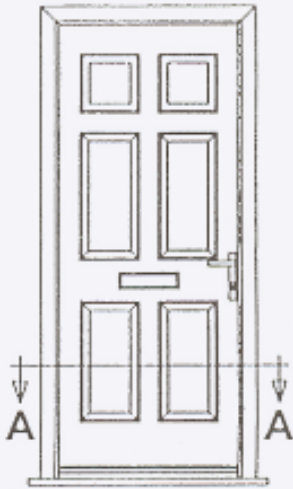
## Cross Section Lock and Hinge

### Cross Section 44Mm Door Lock & Hinge Detail Nan Ya Slab

Section A.A (Not to scale)  
Reinforcement not shown



- Lock Winkhaus
- Hinge Challenger/SFS/Butt
- Frame Reinforced Eurocell Chamfered/ Liniar Sculptured
- Edging Aluminium Fast Fit™

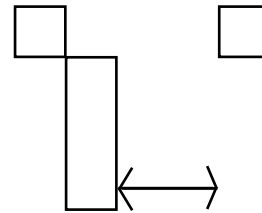


# Technical Data Sheet 1.8

## Door Opening and Clearance Calculations

### Clear Opening

\*A clear opening size is the measurement between the outside edge of the frame to the start of the handles when the door is open at 90 degrees\*



Eurocell Standard Frame	Deduct 188mm from the Width of the Door
Eurocell Intermediate Frame	Deduct 158mm from the Width of the Door
Linlar Frame	Deduct 172mm from the Width of the Door

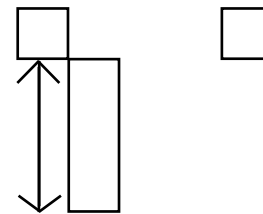
**For Example: 900mm - 188mm = 712mm Clear Opening**

Regulations for Part M access require a minimum clear opening of 775mm making the frame size no less than 963mm or 933mm for Eurocell or 937mm for Linlar

### Clearance

\*A door clearance is the measurement from the frame to the edge of the slab (Lock side) when the door is open at 90 degrees\*

Calculations for clearance using Challenger hinges are;  
Slab width including aluminium edges + 35mm hinge throw.



#### Calculations for Slab Width Including Aluminium Edges

Standard Frame (031)	Deduct 118mm from frame width
Intermediate Frame (032)	Deduct 88mm from frame width
Linlar	Deduct 102mm from frame width

**For Example: 900 - 118 + 35 = 817 projection**

### Hinge Clearance or Plaster Line Clearance

	Challenger Hinge	SFS Hinge	Butt Hinge
Eurocell Standard Profile	35mm	35mm	53mm
Eurocell Intermediate Profile	18mm	18mm	38mm
Linlar Profile	27mm	27mm	N/A

Eurocell Intermediate SFS/Challenger - add on recommended to the hinge side



# Technical Data Sheets 2.0 - 2.2

## *Frame Options*

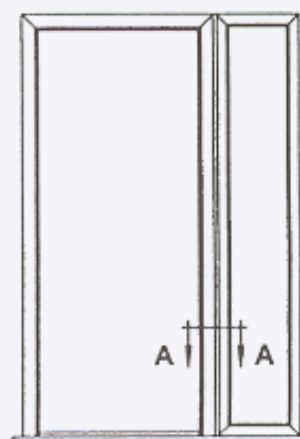
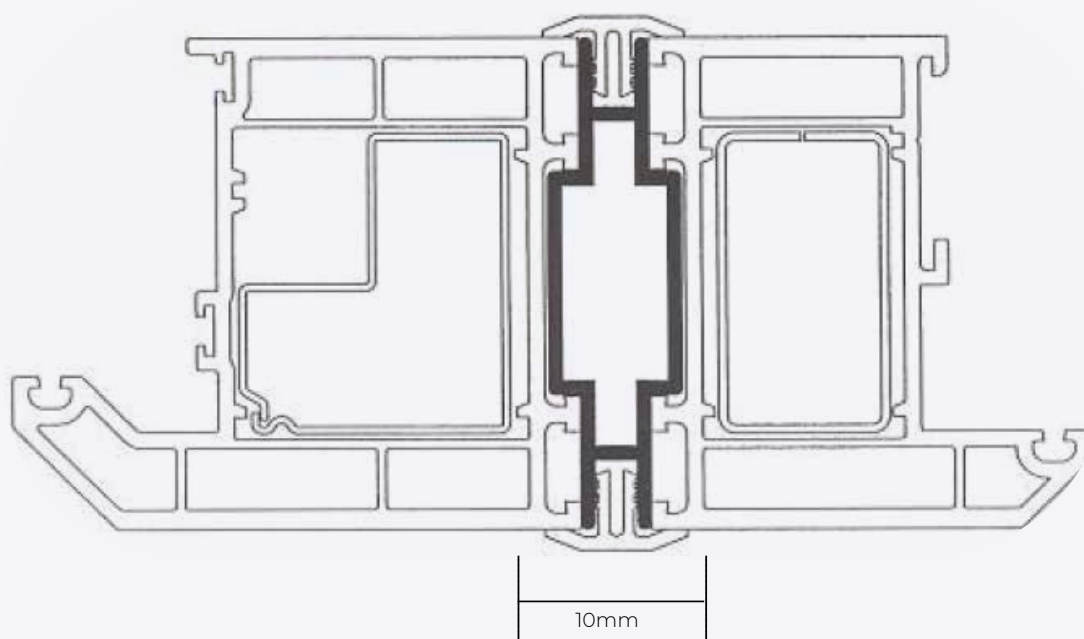
# Technical Data Sheet 2.0

## *SC1 Sidelight Option*

### Sidelight Option SC1

### Sidelight Coupling Section 150mm No Midrail - Eurocell

Section on 'A-A'  
Not to Scale  
Weatherseals not shown



NB - This is not a structural mullion - such options are available upon request

# Technical Data Sheet 2.1

## *SC2 Sidelight Option*

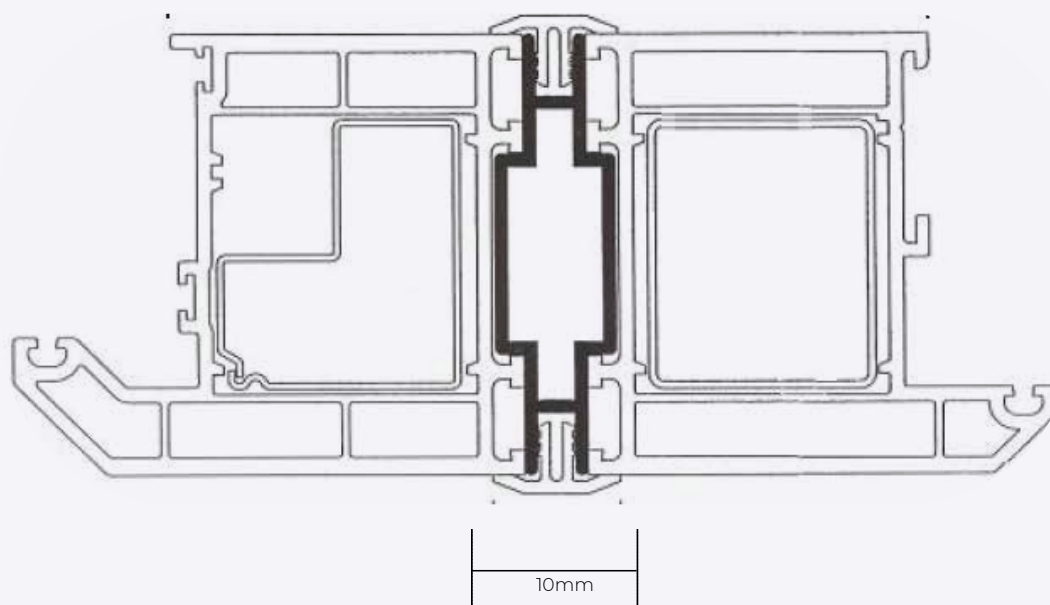
### Midrail Option SC2

### Sidelight Coupling Section With 115mm Midrail Option - Eurocell

Section on 'A-A'

Not to Scale

Weatherseals not shown

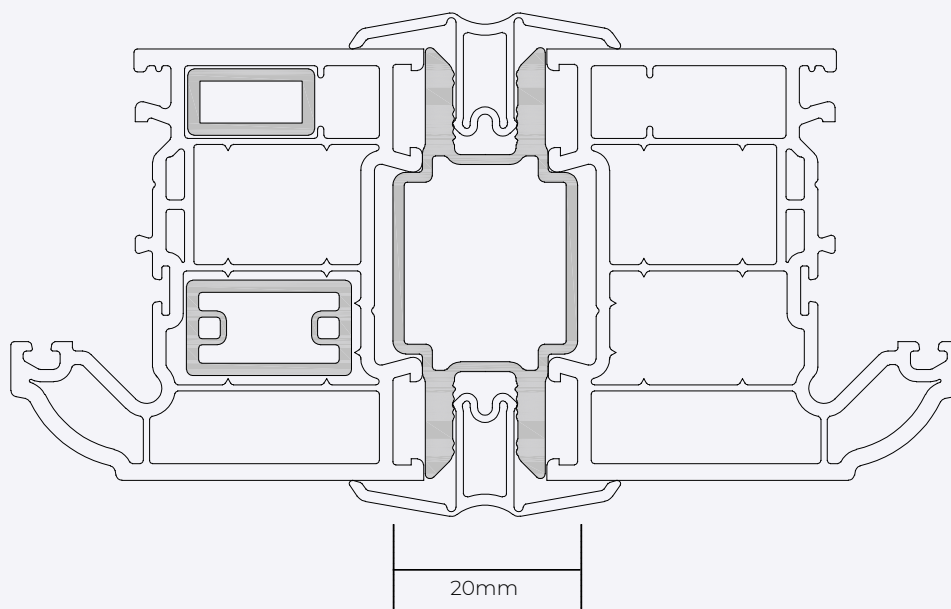


# Technical Data Sheet 2.2

## *SC3 Sidelight Option*

### Midrail Option SC3 Sidelight Coupling Section - Liniar Sculptured

Section on 'A-A'  
Not to Scale  
Weatherseals not shown



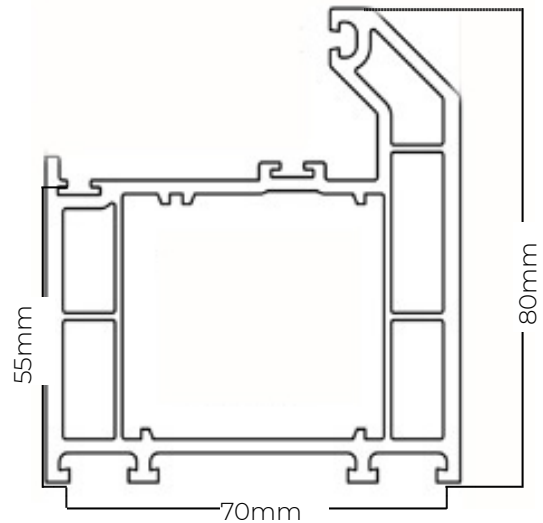
# Technical Data Sheets 3.0 - 3.3

## *Threshold Options*

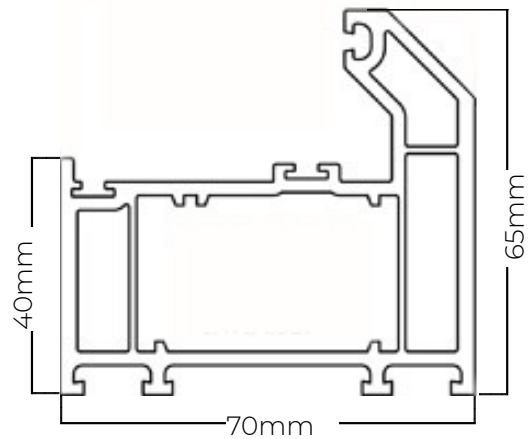
# Technical Data Sheet 3.0

## *PVC Threshold Options*

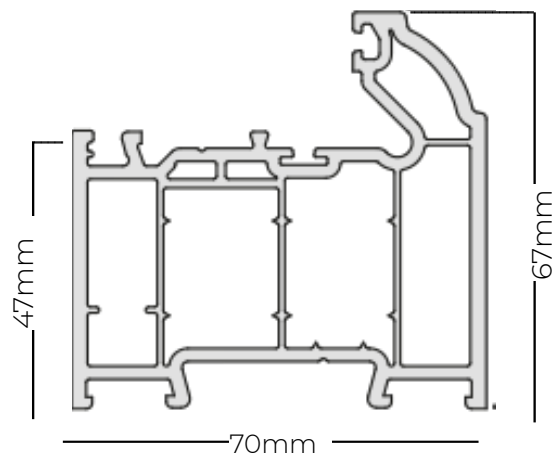
**Eurocell  
Standard Chamfered  
PVC**



**Eurocell  
Slimline Chamfered  
PVC**

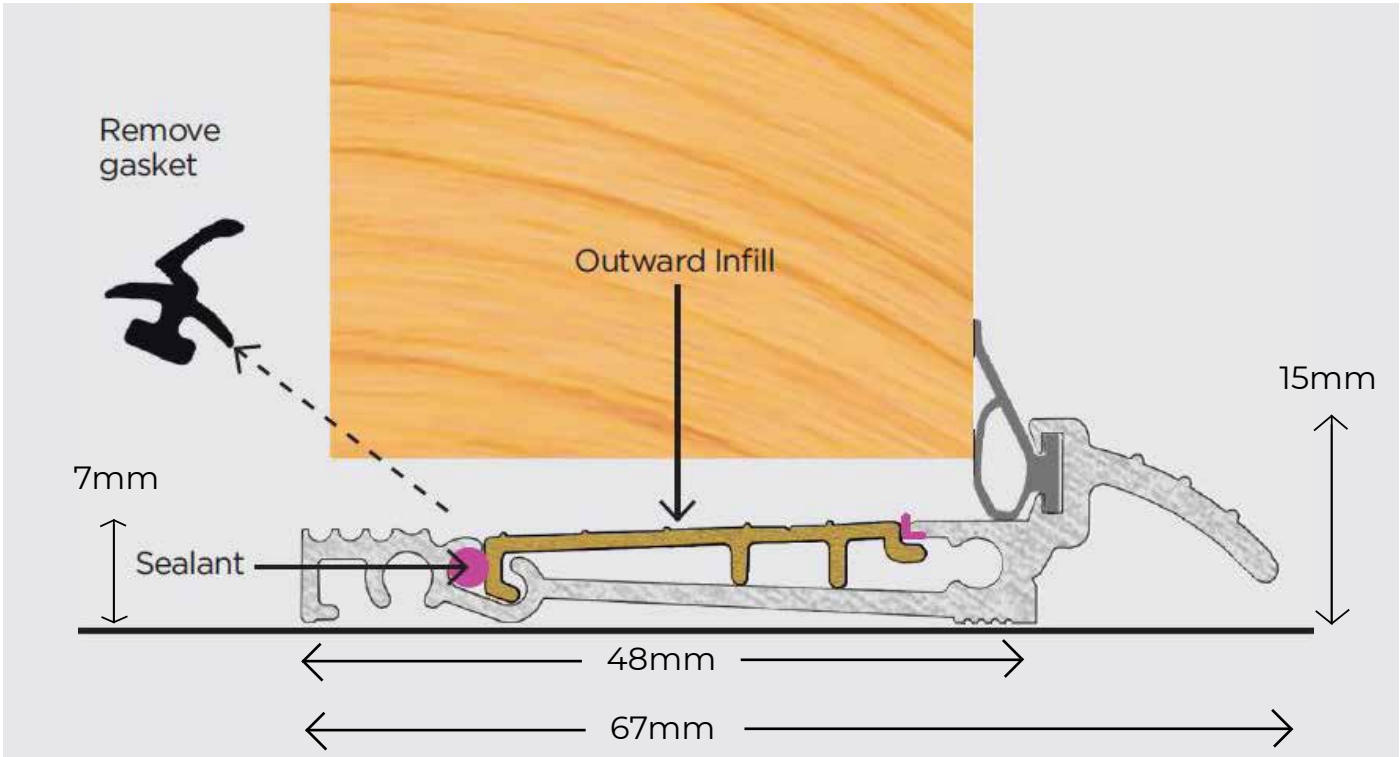


**Liniair  
Standard Sculptured  
PVC**

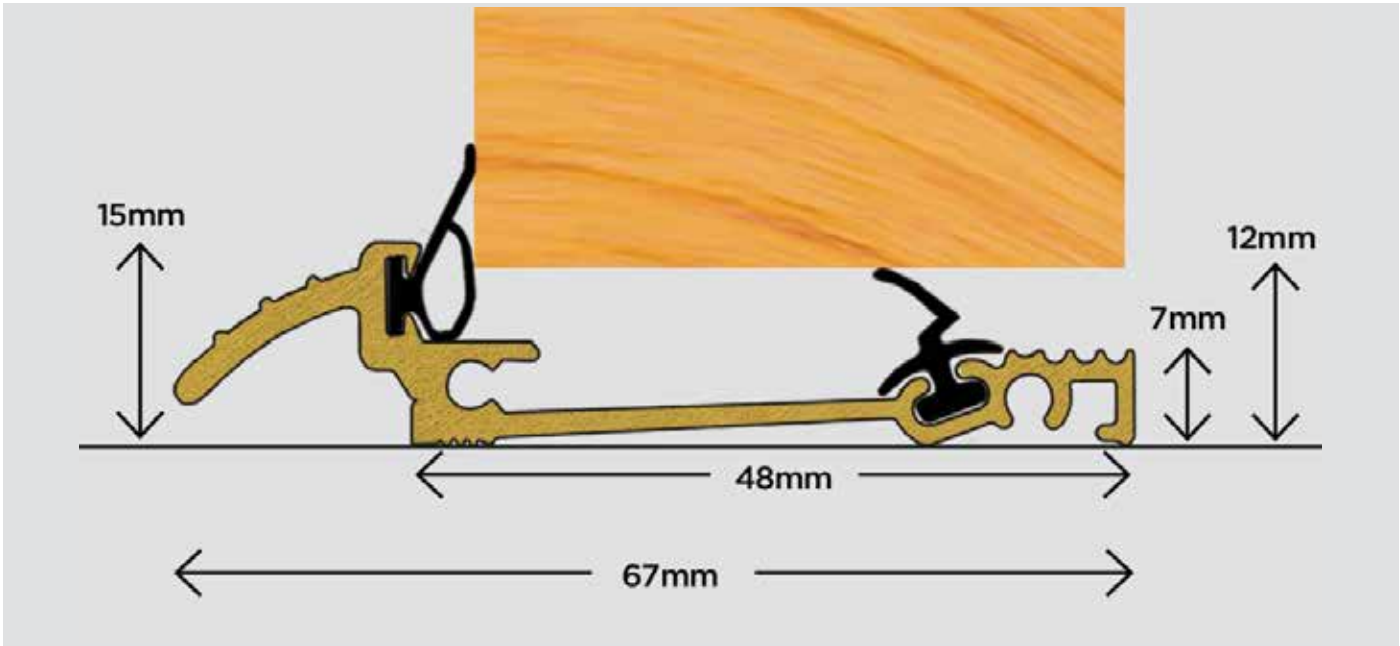


# Technical Data Sheet 3.1

## FS15 Threshold Options



FS15 Open Out

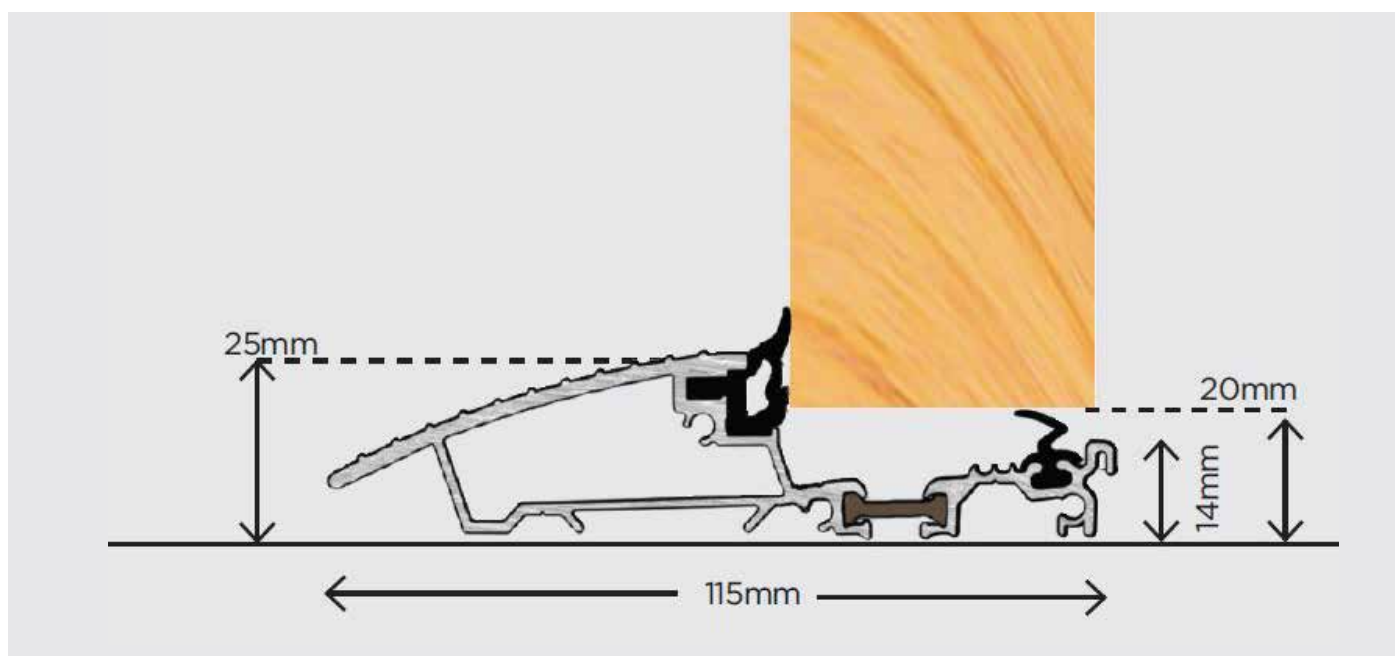


FS15

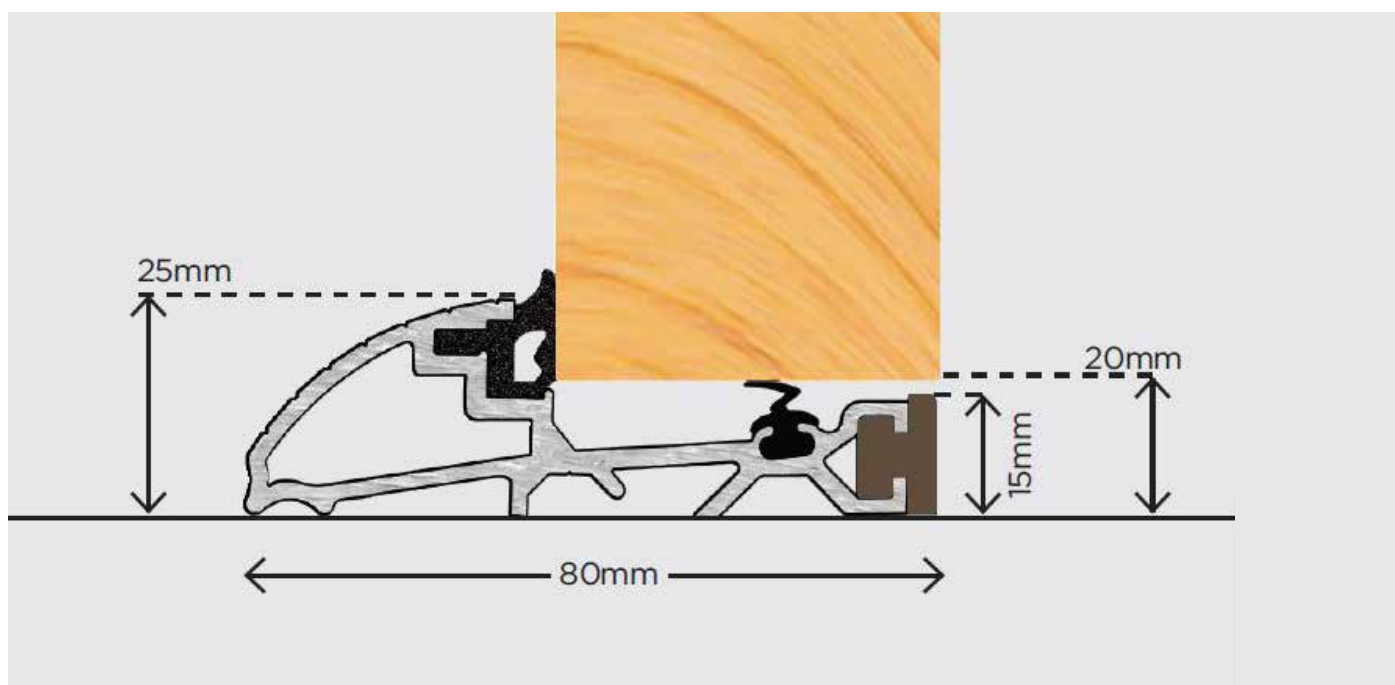


## Technical Data Sheet 3.2

### *Extended Low Aluminium Threshold Options*



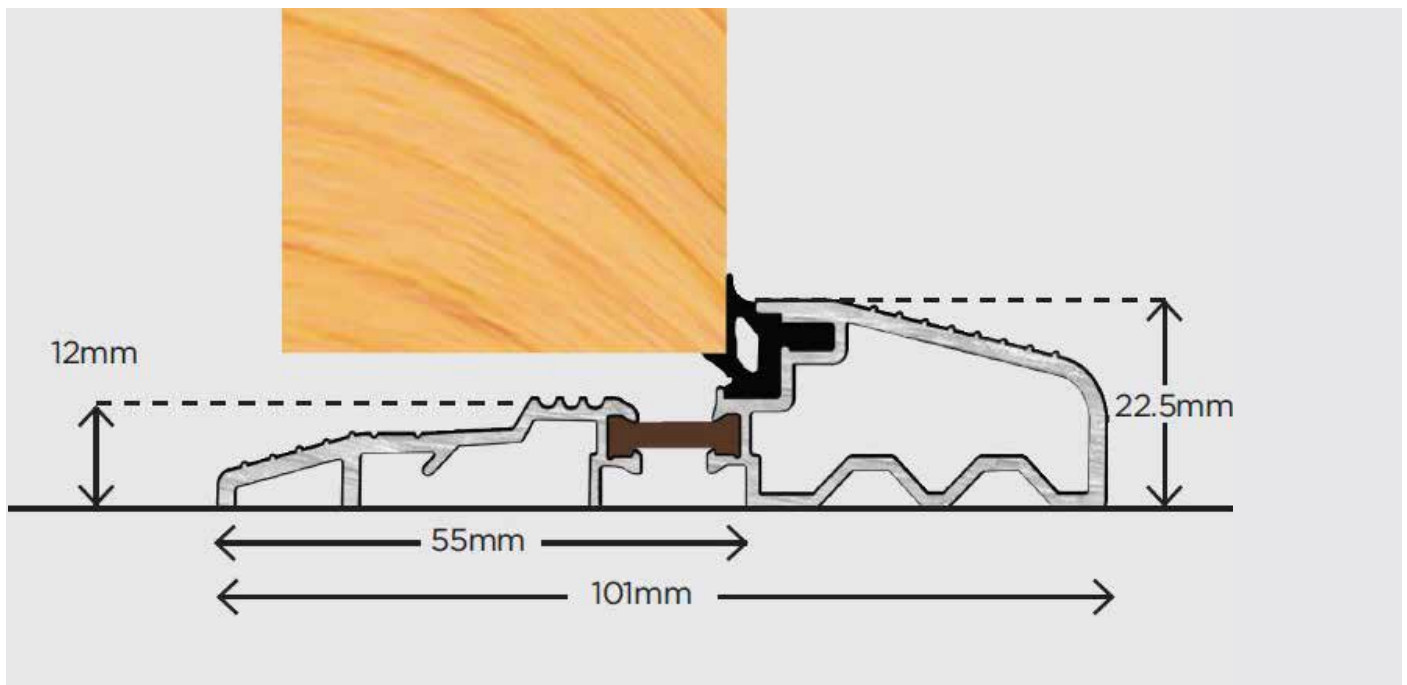
**MDS25 Extended Low Aluminium**



**MDS80 - Extended Low Aluminium - Special Order Only**

## Technical Data Sheet 3.3

### *OUM 2 TB Threshold Option*



OUM 2 TB - Open Out - Alternative to FS15 Open Out - Special Order Only

# Technical Data Sheets 4.0 - 4.7

## *Locking Systems*

# Technical Data Sheet 4.0

## *Winkhaus Trulock<sup>+</sup> (as standard)*

A multi-point locking system specifically designed for composite doors.  
(Covered by Pas24 and Doc Q)

Main features:

- 1. 25mm throw tensile steel hooks**  
High security nickel plated steel hooks fully penetrate the keep rail and help prevent forcing apart of the sash and frame.
- 2. Weather seal compression adjustment in the keeps**  
Together with the enhanced tapered handed hook design the adjustment in the keeps provides for low operating forces. With + 2mm adjustment it is possible to adjust for misalignment of the door during and after installation.
- 3. Heavy duty steel keeps**  
Heavy duty steel keeps are manufactured using high grade steel, plated to comply with the highest Grade 4 corrosion resistance requirement of BS EN1670 European Standard.
- 4. Latch and deadbolt**  
Engineered alloy sprung latch with a nickel plated steel deadbolt provides the Trulock<sup>+</sup> with maximum strength in the centre of the door.
- 5. High performance gearbox**  
Tested to 100,000 cycles the sprung gearbox offers the lowest possible operating forces and helps prevent handle 'droop'.

Pictured below is a standard multi-point lock with 20mm faceplate rounded ends.



Please Note - This is a handed product and cannot be used with open out doors.

# Technical Data Sheet 4.0

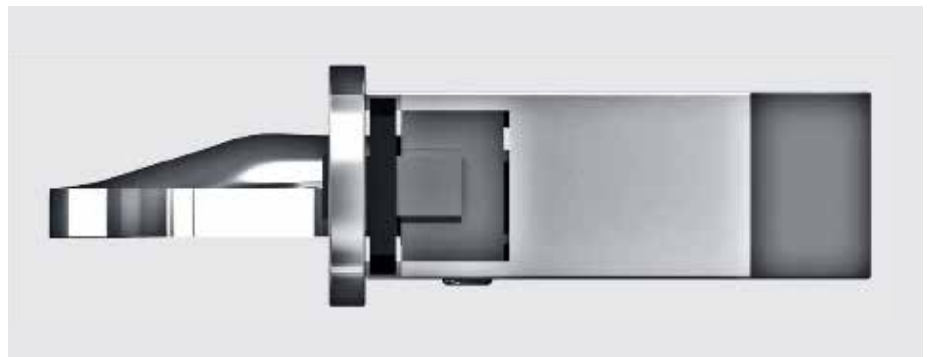
## *Winkhaus Trulock<sup>+</sup> Continued...*

### Latest additional enhancements:

- Centre gearbox strength increased by up to 30% to reduce the risk of malicious abusive loads
- Split follower mechanism supplied in a fixed left hand or right hand configuration to avoid incorrect factory or site manipulation
- Enhanced performance using Low Friction hook thrust plates, for smooth precise operation



Keeps fully adjustable +2mm utilising Torx T15 adjusting tool.



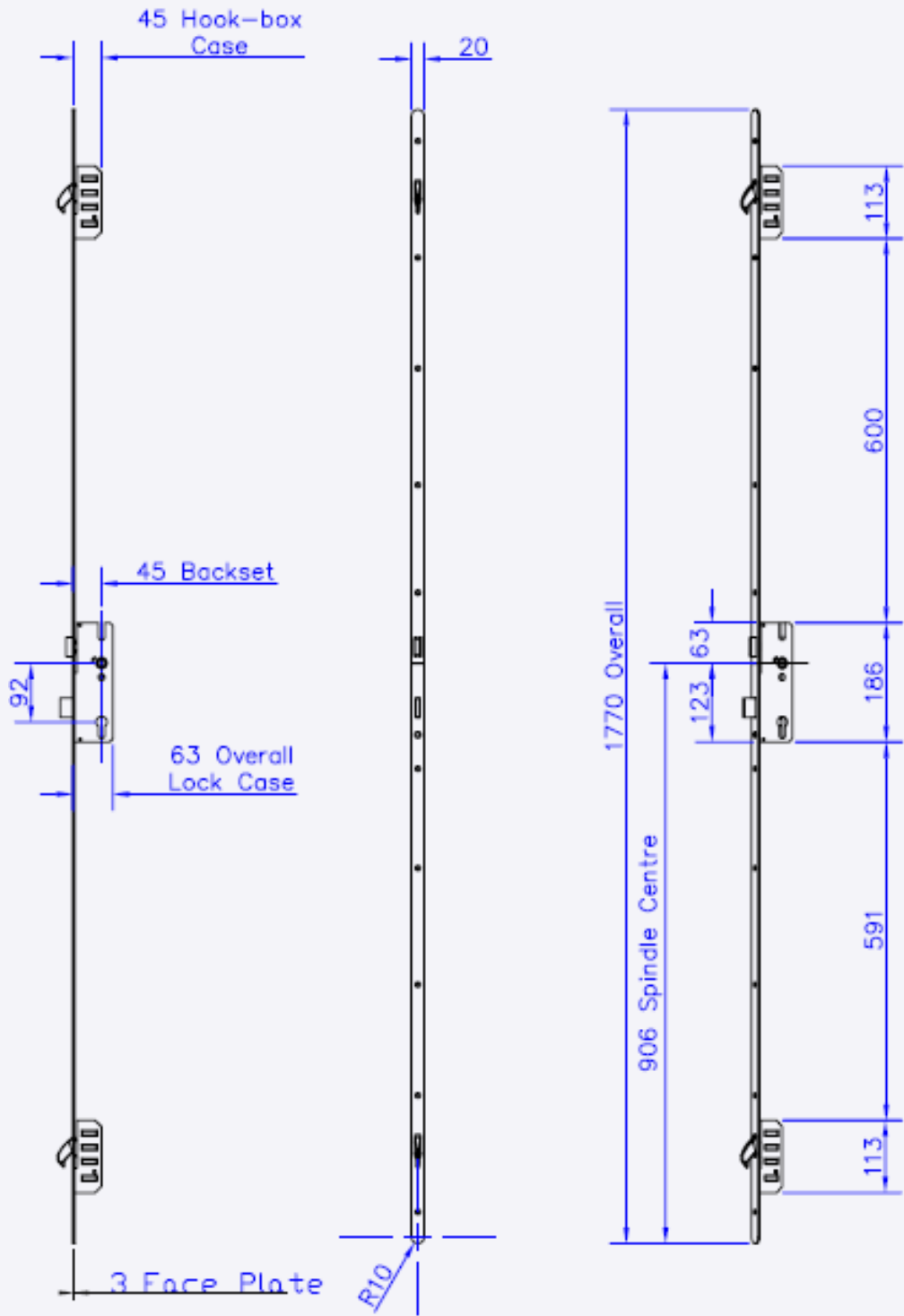
Special design tensile steel handed hook with a 4.5mm chamfer allows a high degree of fitting tolerance for door installation. In addition the hook shape provides low operating forces and helps doors achieve a higher level of weather performance.

# Technical Data Sheet 4.1

## Winkhaus Trulock Dimensional Details

Dimensional details for Winkhaus STV 45mm Backset Lock. Two Hooks on 20mm Rounded End Face Plate.

Handed Door Lock. Trulock 2070/45 M2



# Technical Data Sheet 4.2

## *Winkhaus Cobra Lock (Open Out Doors)*

Pas 24 tested, the Winkhaus Cobra lock is a multi-point locking system specifically designed for all types of applications in various door framing materials.

Main features:

1. **25mm throw brass Cobra™ hooks**  
High security solid forged brass and nickel plated hooks fully penetrate the keep rail and help prevent forcing apart of the sash and frame.
2. **Weather seal compression adjustment in the keeps**  
Together with the enhanced tapered hook design the adjustment in the keeps provides for low operating forces. With + 2mm adjustment it is possible to adjust for misalignment of the door during and after installation.
3. **Heavy duty steel keep rails**  
20mm-26mm wide heavy duty steel keeps are manufactured using high grade steel, plated to comply with the highest Grade 4 corrosion resistance requirement of BS EN1670 European Standard.
4. **Latch and deadbolt**  
Nickel plated sprung latch with 16mm or 20mm throw nickel steel deadbolt provides the Cobra™ with maximum strength in the centre of the door.
5. **High performance gearbox**  
Tested to 100,000 cycles the sprung gearbox offers the lowest possible operating forces and helps prevent handle 'droop'.



Should you wish to change the handing of the lock, follow these simple instructions.

1. Push latch in which pushes screw out
2. Loosen screw
3. Twist latch to face the other way and then push in again
4. Tighten screw
5. Locate small screwdriver into slot in hookcase as shown by label and tap with hammer/mallet to alter split-forward operation



# Technical Data Sheet 4.3

## *GU Secury Slam Locks*

### *Combining Security with Comfort*

#### GU Secury Slam Lock

The high performance, multi-point GU Secury Slam Lock is PAS 24 tested and generally used in conjunction with 'Pull' handles.

The mechanical self-locking system ensures that the door is securely locked against uninvited entry when simply pulled shut. As soon as the door is closed, the two automatic latchbolts throw 20mm and are secured to prevent them being forced back.

From inside, the latchbolts are retracted and the door opened by using a thumb turn, key or door handle. From outside, the latchbolts are retracted and the door opened by a turn of the key which is situated halfway up the door.

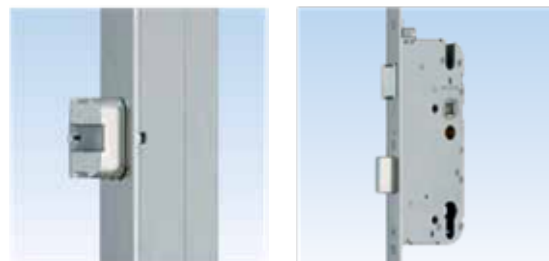
#### GU Secury Heritage Slam Lock

The GU Secury Heritage Slam Lock will help you achieve a classic door appearance which is both secure and functional.

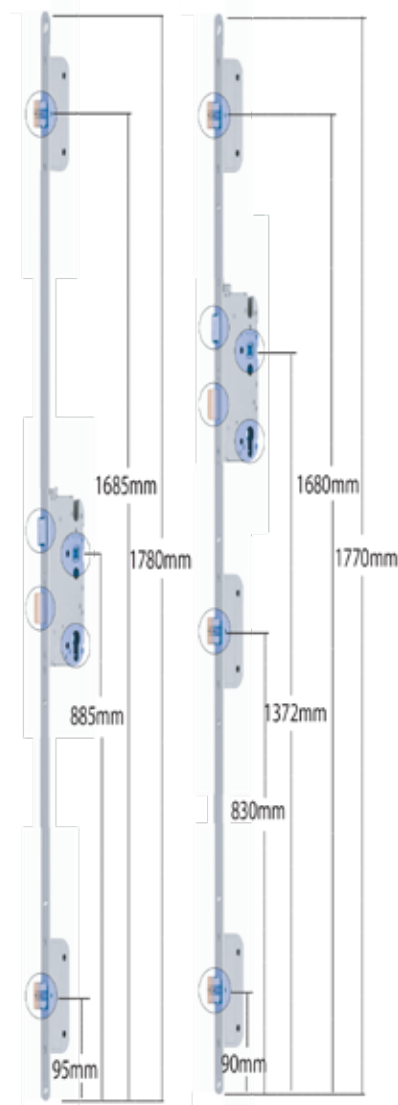
While the GU Secury Heritage Slam Lock works in a similar way to the GU Secury Slam Lock, it has three automatic latchbolts and the lock is positioned two thirds of the way up the door. Simply by closing the door, the top and two bottom latches strike the keep and fully engage to become secure deadbolts.

#### Main Features of the GU Secury Locking System:

- PAS 24 tested
- Latchbolts secured against manipulation when door is closed
- Increased burglar protection with self-locking elements
- Fully adjustable composite keeps with edge protection
- Fully enclosed lock cases for optimum protection
- Universal handing with changeable latch and dead latches



As soon as the door is shut, the latchbolts automatically throw 20 mm and are secured to prevent them being forced back – the door is locked when just pulled shut. These locking systems can be opened at any time via the thumb turn, key or door handle from inside and by key from the outside.



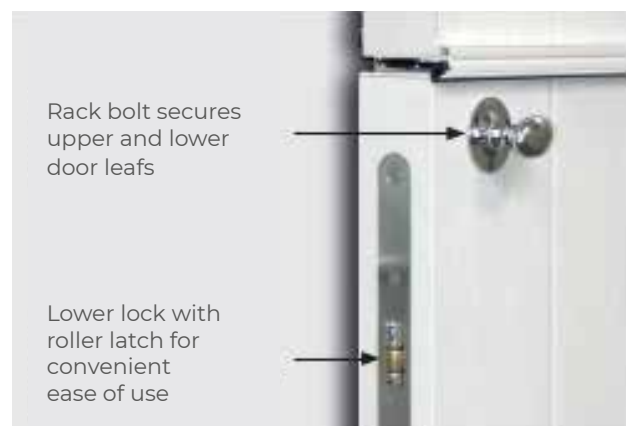
# Technical Data Sheet 4.4

## *Winkhaus Stable Door Lock*

The Stable Door Lock (SDL) multi-Point locking system is especially designed for composite and timber door.

It is a purpose made composite door locking system with two completely separate locks rather than a mismatched combination of other locks. Supplied as standard with a 20mm faceplate, has a number of features:

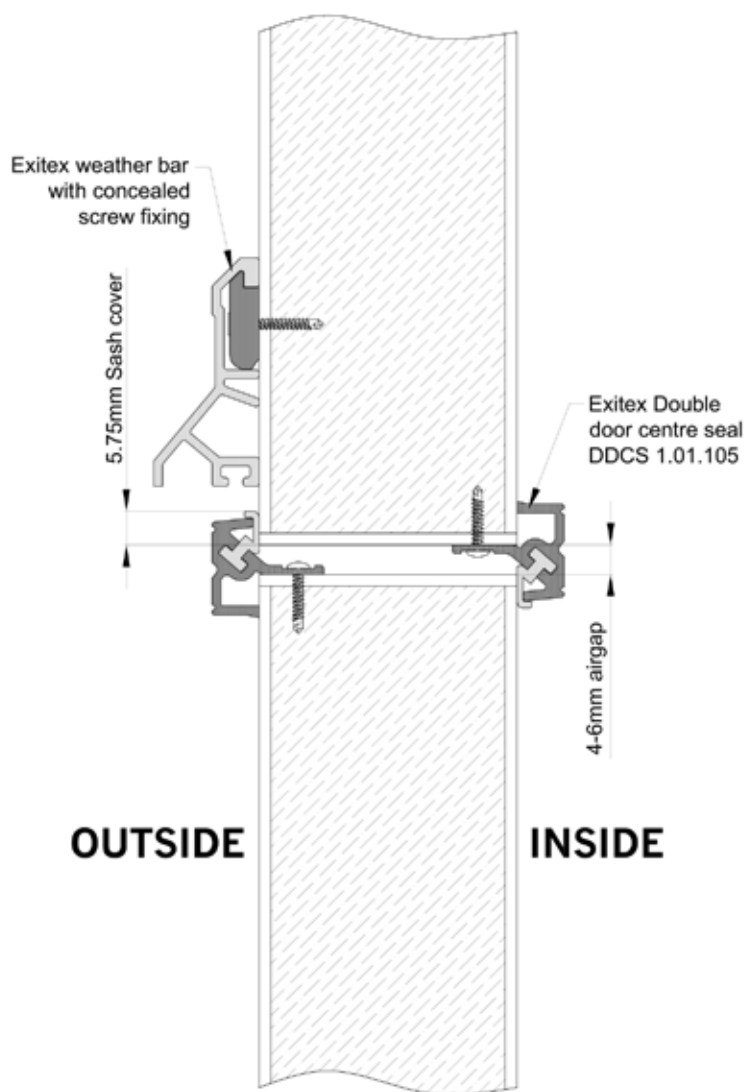
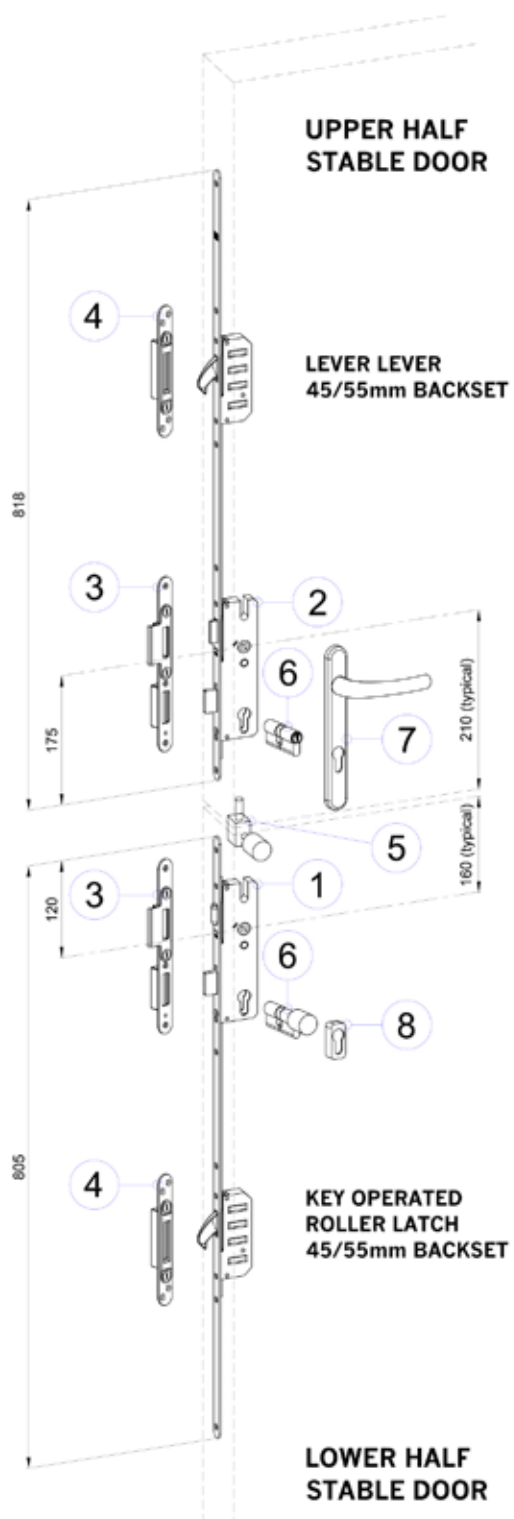
- High strength centre gearbox to reduce the risk of malicious abusive loads
- 25mm throw tapered plated steel hooks for optimum security, ease of operation and weather performance
- 20mm wide radius end faceplate with +2mm adjustment to suit popular routing techniques
- 24mm wide keeps with dust boxes and off set screw fixing for enhanced security
- Sprung latch and nickel plated steel deadbolt provides maximum strength in centre of the door
- Tested to 100,000 cycles the sprung gearbox offers the lowest possible operating forces and helps prevent handle "droop"
- Operation - Key operated bottom lock fitted with a roller latch and lever/lever operated top lock



With the rack bolt engaged and all hooks retracted. The door operates as a conventional door. Releasing the rack bolt separates the upper and lower leaves, you can now choose to open the top leaf only.

# Technical Data Sheet 4.5

## *Winkhaus Stable Lock Cross Section*



**Composite door sash**  
Door edge banded on all edges including horizontal split sash position

**Aluminium stable door jointing kit (Exitex supply)**

- 1 x Internal DDCS - white
- 2 x External weather bar\*
- 1 x External DDCS\*

\* Colour matched to suit composite door skin

# Technical Data Sheet 4.6

## *YS170 Lock*

Pas 24 tested and accredited by Secure by Design, the YS170 is a multi-point locking system from Yale. Provided with SBD doors, the innovative lock has been designed to offer optimum door performance, uncompromising quality and the highest levels of security for composite door systems.

### Product Features

#### Top and Bottom Hookbolts

- Reverse hookbolts for anti-lift
- Assists door compression and reduced door bow
- High level of security against attack

#### Outboard Adjustable Roller

- Provides a tight weatherproof seal down the full length of the door
- Increased smoother and lower operational forces
- Adjustable 1.5mm to right or left of centre with 4mm allen key

#### Stainless Steel Faceplate

- Full range to suit all applications
- Complete with marking lines to aid fabrication

#### Deadlocking Latch with Snib

- Easily reversible for re-handing
- Nightlatch function achieved by using split-spindle function
- Latch can be held in with snib

#### Split Spindle

- Nightlatch functions achieved by easy re-handing either inside or outside the door
- Instructions printed on every lock case

#### Centre Hookbolt

- Extra level of security in centre of the door
- Assists in door compression
- High level of security against attack

#### Full Striker Range

- Full length, one piece striker
- Three piece integral hook and roller striker
- Clearance on all apertures for 4mm door drop



# Technical Data Sheet 4.7

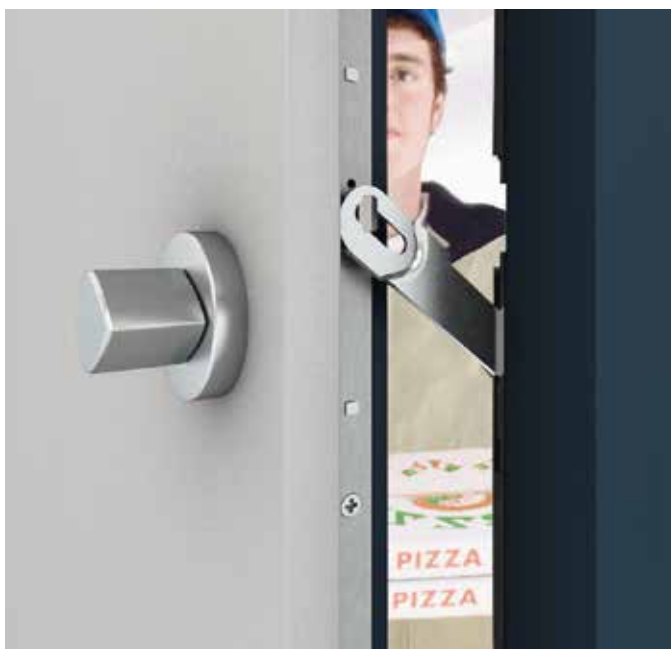
## *Winkhaus AV3e Lock*

The Winkhaus AV3e lock includes the following features:

- New dual hook for even greater security and convenience
- Easy door handling
- Tight seal and high energy efficiency
- The magnetic trigger minimises unattractive scratches on the door frame
- Fail-safe function prevents the door from slamming shut when the hooks are extended
- Practical daytime latch for opening the door without a key if necessary
- Holiday lockout function increases your security when your on trips away from home
- Optionally available with entry guard function to stop unwanted visitors
- Door is exceptionally durable and has a long service life
- Insurance coverage even if the door is only pulled shut

Plus the added benefits of:

- Unlock entrance doors without having to touch them
- Open the door via wireless remote control, fingerprint, transponder, Bluetooth or other identification media
- autoLock AV3 can be retrofitted to the blueMatic EAV3



# Technical Data Sheets 5.0 - 5.3

## *Hinges*

# Technical Data Sheet 5.0

## *Features of an SFS Hinge*

### Main features:

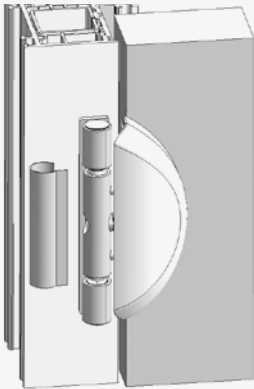
- Adjustable both up and down to help you achieve optimum compression on low thresholds for an excellent weatherseal
- The hinges have been successfully tested to indicate suitability for use in doorsets to PAS24
- They offer excellent aesthetics with a slim barrel body and stylish shaped sash plate
- The SFS hinge is part of the dynamic hinge family to offer consistent styling and matching visual appeal across composite doors
- Hinges are supplied as a sub assembly preset to allow 3mm adjustment
- Complete with jig system for perfect alignment of the hinge on the door frame
- Safer working practices are possible - take a new approach to door fitting with means installation can be completed by only a single operative
- Fixed gasket pressure adjustment guarantees that the weather seal remains exactly as preset in the factory
- All fitting can be done without the need to lift the sash from the frame
- Once fitted correctly and adjusted, it should not move or drop.
- Suitable for inward and outward opening doors



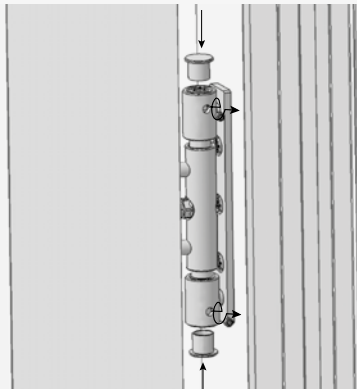


# Technical Data Sheet 5.1

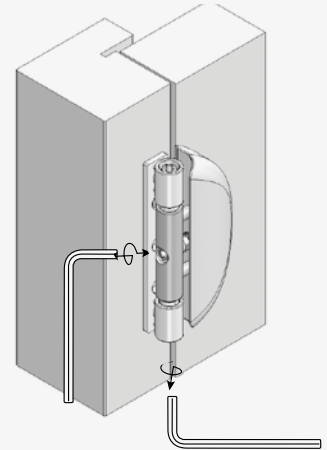
## *SFS Hinge Adjustment*



1. Remove the cover cap.

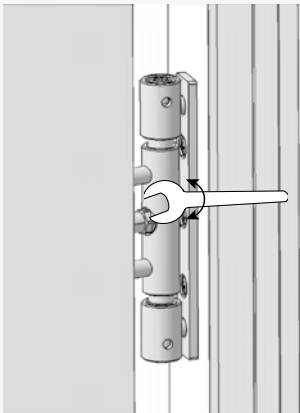


2. Unscrew the security screws and remove the caps.

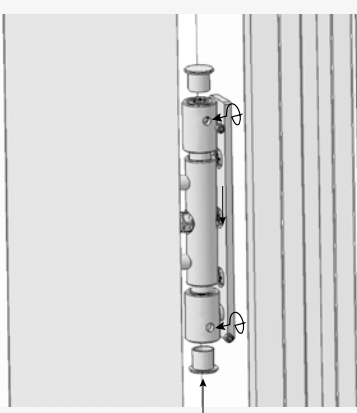


3. Horizontal adjustment: Adjust by turning the centre screw with a 5mm Allen Key.

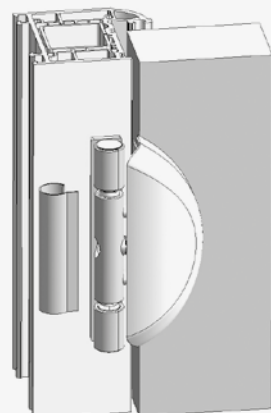
4. Height adjustment: Adjust by turning the bottom screw with a 5mm Allen Key.



5. In difficult situations it is possible to make the horizontal adjustment from inside by turning the hexagonal nut with a 9mm spanner.



6. Refit the caps and fasten the security screws.



7. Refit the cover cap on the central barrel.

# Technical Data Sheet 5.2

## *Features of a Challenger Hinge*

### Main features:

- Designed to meet the requirements of PAS 24:2012 as part of a compliant door system, and BS 6375
- Designed specifically for composite doors
- Unique 3D adjustable - Lateral, Height & Compression:
  - Lateral +2mm / -2mm
  - Height +3mm
  - Compression +0.5mm / -0.5mm
- Security of the pin is achieved by a concealed grub screw, prevents unauthorised lift off on outward opening doors
- Self-lubricating bushes
- Suitable for inward and outward opening doors



Example shown in gold, surcharge applies. For alternative colour options see page 44.

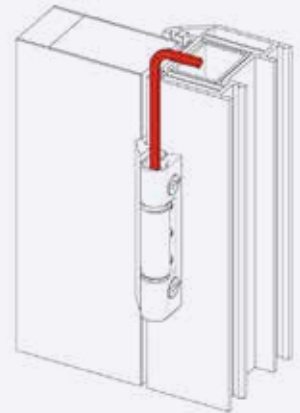
Please Note - Although SFS and Butt hinges are interchangeable with Challenger hinges, it isn't recommended as existing holes may be visible and new hinge strip is required.

# Technical Data Sheet 5.3

## *Challenger Hinge Adjustment*

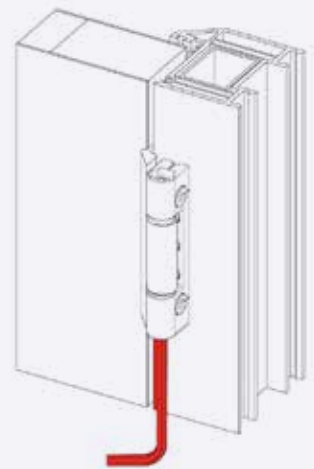
### Compression Adjustment +0.5mm -0.5mm (5mm Allen Key)

- Remove the top cap.
- Check the pin alignment via the mark on the top of the pin. If the mark is pointing towards the door sash, the adjustment is in the neutral setting.
- To increase compression, turn the pin so that the alignment mark is moved towards the door frame.
- To reduce compression, turn the pin so that the alignment mark moves away from the frame.



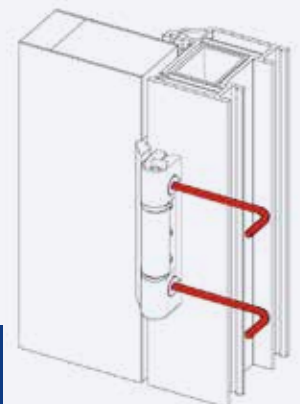
### Vertical Adjustment +3.0mm - 0.0mm (5mm Allen Key)

- Remove the bottom cap.
- To raise the door sash, rotate the vertical adjustment screw clockwise. Ensure that all other hinges are adjusted equally.
- To lower the door sash, rotate the vertical adjustment screw anti-clockwise. Ensure that all other hinges are adjusted equally.



### Lateral Adjustment +2.0mm - 2.0mm (4mm Allen Key)

- Remove the side cover caps.
- Rotate the lateral adjustment drives in the direction required.
- Ensure that each pair of alignment marks are at the same point.



### Warning

It is not recommended to fully adjust either one adjuster only or one hinge only. Adjustments should be made gradually on each hinge until the desired adjustment is achieved.

# Technical Data Sheets 6.0 - 6.6

## *Miscellaneous*

# Technical Data Sheet 6.0

## *Door Installation and Maintenance Guidelines*

### Door Fitting Guidelines

To ensure that the lock engages correctly and that there is a good seal when the door is closed, then the following is recommended:

1. The hinge side should be fixed first ensuring the frame is square and plumb.
2. Ensure there is an equal air gap between the door and the frame all the way round.
3. The lock side should then be positioned so that the locking and sealing are correct, then fixed into position.

### Lock Adjustment

The Keeps lateral position may be adjusted in the face of the Keep. The optimal position of the door slab relative to the frame is achieved when the gasket compression is measured at 4mm when the lock is fully thrown.

However, if after adjustment there is resistance to operate and lock the mechanism, then the keep should be adjusted as to increase the gasket gap until the mechanism operates and locks smoothly.

### Maintenance Guidelines

#### Cleaning

- Wash the door and door frame with warm soapy water and a soft, lint-free cloth to remove grime and atmospheric deposits.
- Never use a pressure washer or steam cleaner.
- Stubborn marks on the door frame may need to be tackled with a specialised PVC cleaner but please ensure you read the cleaning guidelines carefully so as to ensure suitability.
- Under no circumstances should you use any solvent based or abrasive cleaners and avoid the use of any adhesives or tack for temporary fixing i.e. For seasonal or other decorations.

#### Hinges

These are to be oiled with a light duty oil on a six monthly cycle.

#### Locking System

This is to be lightly oiled at the locking points with a light duty oil on a six monthly cycle.

The keep may be adjusted on a three monthly basis to correct any compression variations.

# Technical Data Sheet 6.1

## *Secured by Design Guidelines*

### Requirements of SBD Doors

Security Cowl Supplied if Letterplate is Required
Safety Chain Supplied to Front Door
Spyhole Fitted to Front Door
6.8mm Laminated Glass Required to a Glazed Door
Cylinder Guard / 3* Cylinders

### Not Available on SBD Door

Unglazed
Sidelights/Midrails/Fanlight
Feature Side Panels
Mortice Lock
Separate Fanlight
Open Out
Yale Conexis
Electronic Locks
Slam Locks
Triple Glazed Units*

### Fitted as Standard

Challenger Hinges
Yale YS170

### Alternatives Available

Butt Hinges
Winkhaus Trulock
Dog Bolts
Thumbturn



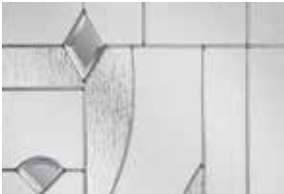











### \*Triple Glazed Designs that conform to SBD

### Double Glazed Designs when paired with laminated backing glass conform with SBD

Kara	Resin Fleur
Lunna	Fusion Jewel
Monza	Murano
Scotia	Colour Diamond
Trieste	

# Technical Data Sheet 6.2

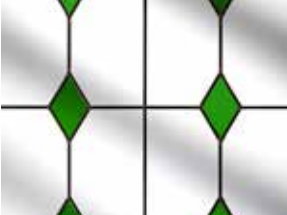


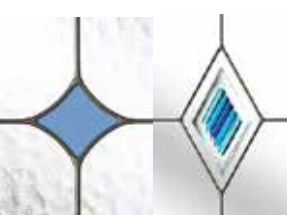


## *Glass Options - Triple Glazed*



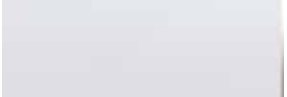



Glass	Glass Name	Facts	Glass	Glass Name	Facts
	*Lunna	Triple Glazed Available SBD No Backing Glass Required		Dorchester Blue Dorchester Green Dorchester Amber	Triple Glazed No Backing Glass Required
	*Monza	Triple Glazed Available SBD No Backing Glass Required		*Kara Brass *Kara Zinc *Kara Green *Kara Grey *Kara Blue *Kara Red	Triple Glazed Available SBD No Backing Glass Required
	*Scotia Brass	Triple Glazed Available SBD		Platinum Diamond	Triple Glazed No Backing Glass Required
	*Scotia Zinc	No Backing Glass Required		Platinum Elegance	Triple Glazed No Backing Glass Required
	*Trieste	Triple Glazed Available SBD No Backing Glass Required		Prairie Zinc	Triple Glazed No Backing Glass Required
	Abstract Zinc	Triple Glazed No Backing Glass Required		Saxony	Triple Glazed No Backing Glass Required
	Brilliance	Triple Glazed No Backing Glass Required		Simplicity Brass	Triple Glazed
	Clarity Brass	Triple Glazed		Simplicity Zinc	No Backing Glass Required
	Clarity Zinc	No Backing Glass Required			



# Technical Data Sheet 6.2

## *Glass Options - Double Glazed*

Glass	Glass Name	Facts
	*Colour Diamond Black/ Blue/ Green/ Red	Double Glazed Available SBD Backing Glass Required
	Deco	Double Glazed Clear Backing Glass Only
	Diamond Lead	Double Glazed Available SBD Backing Glass Required
	*Fusion Jewel: Black/Beige Blue Green Red	Double Glazed Available SBD Backing Glass Required
	Alpine	Double Glazed Available SBD Clear Backing Glass Only
	*Murano: Black Blue Green Purple Red	Double Glazed Available SBD Backing Glass Required

Glass	Glass Name	Facts
	*Resin Fleur	Double Glazed Available SBD Backing Glass Required
	Bullion	Double Glazed No Backing Glass Required
	Sandblasted/ Satin	Double Glazed Available SBD
	Sandblasted Clear Number or Vice Versa	Backing Glass Required
	Laminated Glass (6.8mm)	Double Glazed Available SBD Backing Glass Required
	White Mini Blind (1/2 Glazed only with clear glass)	Double Glazed No Backing Glass Required

All of our glass is 4mm Toughened  
Some have the option to be 6.8mm Laminated\*

See Glass Bible for further information



# Technical Data Sheet 6.2

## *Glass Options - Double Glazed*

Glass	Glass Name	Facts
	Harmony Selena	Double Glazed Available SBD No Backing Glass Required
	Harmony Pyramid	Double Glazed Available SBD No Backing Glass Required
	Harmony Hive	Double Glazed Available SBD No Backing Glass Required
	Harmony Onyx	Double Glazed Available SBD No Backing Glass Required
	Harmony Verona	Double Glazed Available SBD No Backing Glass Required

Glass	Glass Name	Facts
	Personalised	Double Glazed Backing Glass Required

# Technical Data Sheet 6.3

## *Re-glazing a Cassette Instructions*

**To glaze/ de-glaze cassettes, follow the ten steps below:**

**To remove the existing glass and cassettes:-**

1. Carefully run a Stanley knife blade between the cassette and the face of the door slab and between the cassette and the face of the glass, taking care to avoid any damage to the slab.
2. Carefully insert a wide bladed chisel or screwdriver between the cassette and the door slab.
3. Place some padding on the face of the glass, to protect it, and lever the cassette away from the door slab and the internal cassette.
4. Once the cassette starts to separate, follow the procedure as above and work around the perimeter of the cassette, prising the two halves apart.
5. Once the cassettes are separated, remove the glass and ensure that the surface of the door is relatively clean and free from any tape.

**To replace the glass and cassettes:-**

6. Apply glazing tape to the internal face of the external cassette to ensure that a watertight finish is achieved.
7. Position the new glass into the external cassette and apply glazing tape around the perimeter edge.
8. Using a “no-nails” type of adhesive, insert a small amount into the female pockets of the cassette and carefully position the glass into the glazing aperture in the door, align with the internal cassette.
9. Push the two cassettes together firmly and work around the external face of the cassette using a soft-faced mallet to knock the cassettes together, applying manual pressure from the inside. For an extra seal, apply a further thin bead of silicone around the internal cassette.
10. Clean off any surplus adhesive and silicone. Ensure that the cassettes fit tightly to the face of the door.

# Technical Data Sheet 6.4

## *Furniture Options*

	Chrome	Gold	Bright Bronze	Graphite	White	Black	Brushed Steel	Polished Steel	Heritage Black*	Brown	Anthracite Grey	Matt Chrome
Lever / Lever										N/A	N/A	N/A
Lever / Lever Swan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A
Lever / Lever Split Spindle										N/A	N/A	N/A
Lever / Pad										N/A	N/A	N/A
Thumbturn			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cylinder			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ABS Ultimate Cylinder			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Letterplate										N/A	N/A	N/A
Urn Knocker									N/A	N/A	N/A	N/A
Urn Knocker with Viewer									N/A	N/A	N/A	N/A
Slimline Urn							N/A	N/A	N/A	N/A	N/A	N/A
Slimline Urn with Viewer							N/A	N/A	N/A	N/A	N/A	N/A
Oval Knocker			N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Scroll Knocker			N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A
Viewer			N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A
Numerals							N/A	N/A	N/A	N/A	N/A	N/A
Safety Chain			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heritage Decorative Door Knob	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A
Heritage Bullring Knocker	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A
Long Pull Handle 800mm	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Long Pull Handle 1200mm	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Long Pull Handle 1800mm	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Escutcheon	N/A		N/A	N/A	N/A	N/A				N/A	N/A	N/A
Fingerpull Escutcheon	N/A		N/A	N/A	N/A	N/A				N/A	N/A	N/A
Knob Handle	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Curved Handle	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Butt Hinge	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	N/A
Challenger Hinge			N/A	N/A		N/A	N/A	N/A	N/A		N/A	N/A
SFS Hinge			N/A	N/A			N/A	N/A	N/A			

Please note - Cylinders/ Thumbturns are a 35/35 split  
Finger Pull Escutcheons are not available with a Eurocell Frame

# Technical Data Sheet 6.5

## Measuring a Bowed Door

The recommended method of measuring a bow on a composite door when checking against the accept/reject tolerance is described below.

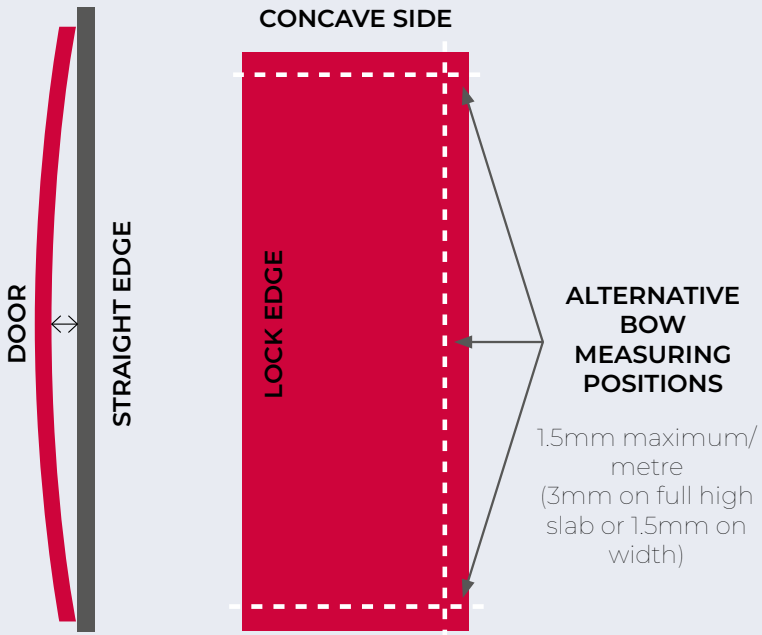
If a door slab is showing a degree of bow this will be exhibited as concave on one side and convex on the opposite side.

The bow measurement should always be taken on the concave side by placing a full length straight edge against the door and measuring the deviation at the central point on the straight edge.

Measurements are not to be taken on the convex side as this does not give a true reflection of bow as defined.

The diagram is exaggerated to illustrate the above.

When the door is closed to help avoid bowing ensure top and bottom locking points are engaged to assist in the reduction of thermal movement.



If the door blank is fitted, you must ensure the frame is plumb and square. Replacing a door blank will not resolve a poor installation, frame checks must be completed. Three images similar to the below must be supplied per reported door blank.



Full external face



Straight edge on concave face



Measurement between door & straight edge

# Technical Data Sheet 6.6

## *Thermal Movement*

All composite slabs, experience thermal movement. The slab will recover to its original status, to a maximum of 1mm side to side and 3mm top to bottom, when the installation recommendations are applied, which are available upon request.

Slackening off the lock keeps will compensate for the movement of the slab within these tolerances. The hooks of the multipoint lock must be in compression with the inner edge of the pocket keep. If this does not happen the door may move to the inside of the property (towards the cold side) and give the impression the door is bowed.

It is important to ensure the centre keep for the latch only allows the door to become flush with the inner face of the outer frame and not any tighter as this could also cause the door to appear bowed.



### Vertical

Deflection of the slab inwards and outwards from top to bottom.

Maximum bow permitted is a further 3mm measured from the middle of the slab.



### Horizontal

Deflection of the slab inwards and outwards from side to side.

Maximum bow permitted is a further 1mm measured from the middle of the slab.

If the hooks on the multipoint are not thrown throughout the day and the centre keep setting is too tight, the top and bottom of the door will be in unsupported tension and will eventually stand proud of the inner face of the profile. This will make the hooks on the lock become stiff, as they cannot draw themselves into the hook keep.

Protect your door from natural thermal distortion. Make sure the top and bottom locking points are engaged pulling the handle up every time you shut the door.



Outside

Inside



Outside

Inside

Please note; If these points are not observed the warranties on the functionality and operation of the door will be affected.

# Notes

# Notes



## Enquiries:

Call 01482 790790

[info@hurstdoors.co.uk](mailto:info@hurstdoors.co.uk)

  **@HurstDoors**

*Visit [hurstdoors.co.uk](http://hurstdoors.co.uk)*

Hurst Doors,  
Unit One,  
Kingston International Business Park,  
Somerden Road, Hedon Road,  
Hull HU9 5PE

Designs represented in this publication are protected by copyright owned by or licensed exclusively by Hurst Doors (Hurst Plastics Limited). Product Descriptions, Colours and Unique Features: Every effort is made to ensure that the products we supply correspond as closely as possible to the examples shown in the brochure. Due to a continuous development programme, Hurst Doors (Hurst Plastics Limited) reserve the right to alter specifications without prior notice. All specifications are correct at the time of going to print. E. & O. E.