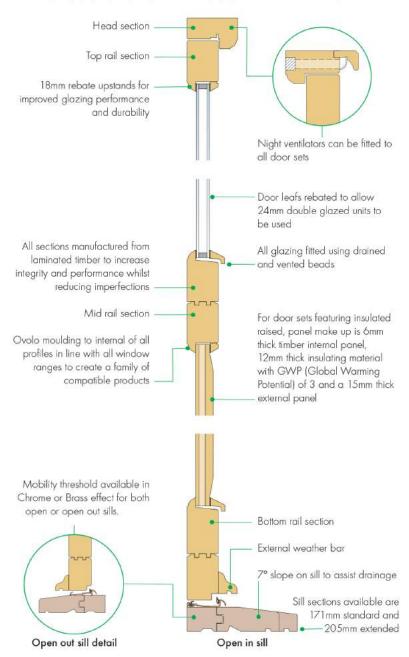
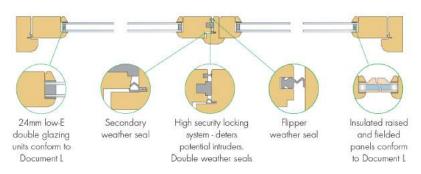
### **CROSS SECTION THROUGH THE VERTICAL**



### CROSS SECTION THROUGH THE HORIZONTAL



### DOOR SET SECURITY

For extra security and peace of mind, the High Performance range of single and double door sets are fitted with Secured by Design (S.B.D.) locking system as standard.

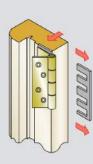


NOTE: If glass is required in the door design, only door sets fitted with laminated glazing will be sold as meeting Secured by Design standards For further details on how to ensure compliance with S.B.D. please contact our Sales Office on 01469 530577.



Security hinges stop potential intruders from lifting the hinge to gain access.

Hinge packers allow the hinges to be moved in or out from the jamb to allow for swelling or shrinkage.



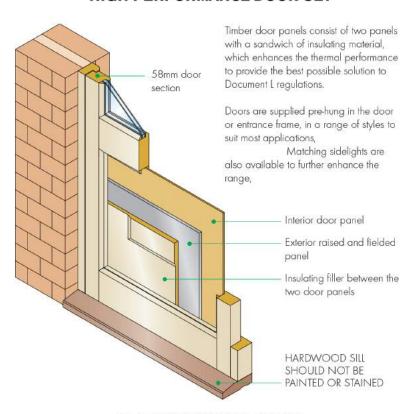
To help deal with the problems associated with moisture movement, we have adjusted the tolerances and changed to the hook lock, which is much more tolerant of small movements in timber. It also incorporates hinge packers, which can be removed by loosening the screws, providing a tolerance at the closing edge, and adding extra tolerance to the meeting stiles. (The packers can be replaced if shrinkage does occur).

The best way to avoid excess movement in timber doors is to follow the guidelines in the British Woodworking Federation's Guide No.11 'Care of Timber Doors On-Site' (available from the Sales Office on 01469 530577).

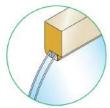
## CE MARKING EUROPEAN CONFORMITY

For further details of CE (European Conformity)

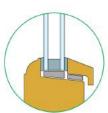
## STRUCTURAL AND INTERNAL FEATURES OF THE HIGH PERFORMANCE DOOR SET



### **GLAZING SYSTEM DETAIL**



24mm low-E double glazed units now fitted as standard, help to meet Document L regulations.



Drained and vented glazing system helps prolong the life of the sealed unit enabling us to offer a 10-year guarantee on the glazing unit.

### CALCULATED BENCHMARK U-VALUES (W/m2K)

Door set U-values with 24mm (4mm-16mm-4mm) low-E

### Benchmark A



Benchmark A 1230mm wide x 2180mm high

Benchmark B 2000mm wide x 2180mm high

Argon-filled low-E Benchmark 1.6 W/m<sup>2</sup>K

Warm edge spacer Benchmark 1.4 W/m²K

## Benchmark 1.4 W



### Benchmark B



1.5 W/m<sup>2</sup>K 1.4 W/m<sup>2</sup>K

### PRODUCT RANGE

- 78 SECURITHERM™ HIGH PERFORMANCE MOBILITY DOOR SETS
- 79 SECURITHERM™HIGH PERFORMANCE SINGLE DOOR SETS
- 80 SECURITHERM™HIGH PERFORMANCE SINGLE DOOR SETS WITH SIDELIGHTS
- SECURITHERM™HIGH PERFORMANCE DOUBLE DOOR SETS
- 82 SECURITHERM™HIGH PERFORMANCE DOUBLE DOOR SETS WITH SIDELIGHTS
- 83 TIMBER DOORS
- 84 FRENCH DOORS
- 85 TIMBER SIDELIGHTS
- 86 DOOR SET OPTIONS



### SECURITHERM™ HIGH PERFORMANCE DOOR SETS

Securitherm High Performance Door Sets offer a high quality, durable option. Security is paramount with all door sets engineered to meet Secured by Design as standard.

Securitherm High Performance Mobility Door Sets also comply with The Building Regulations 2004 Part M; Access and Facilities for Disabled People (Amended 2010 & 2013) which state that all new dwellings should have at least one accessible entrance for disabled people.

- Compliance with Part M requirements where required.
- Compliance with PAS24:2012 as standard.
- Mobility thresholds can be used for both inward and outward opening doors (please state which is required when ordering).
- Heavy duty, long life construction.

### SECURITHERM™ HIGH PERFORMANCE MOBILITY (M) DOOR SETS





WIDTH	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL
950	FNS21MB				
1002	FNS30MB				
1272		FE127MB			
1347		FE135MB			
1378			FE1321MB		
1422		FE142MB			
1494		FE150MB			
1528			FE1521MB		
1650		FE165MB		FED 165MB	
1800		FE180MB		FED 180MB	
1831			FE1821MB		FED1821MB
1950				FED 195MB	
2100				FED210MB	
Name and Address of the Owner, where the Owner, which is the Owner, which					

NOTE: All illustrations above tables show exterior views.

### SETTING IN MOBILITY ( DOOR SETS



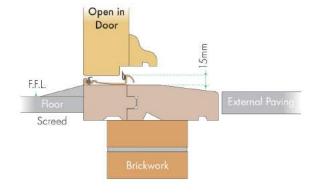
### Option 1

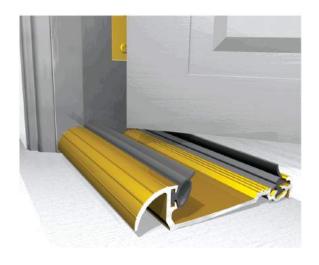
Surface of finished internal flooring level with top of sill section. Aluminium threshold provides maximum 15mm upstand.

# Open in Door F.F.L. Screed

### Option 2

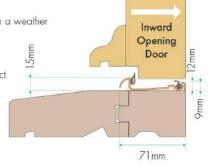
Surface of finished internal flooring below top of sill section so internal transition ramp at maximum 15° slope provided by contractor. Aluminium threshold provides maximum 15mm upstand.

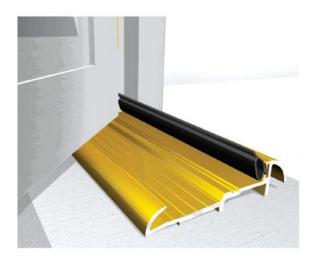




### **OPEN IN THRESHOLD**

- Designed for 58mm thick doors.
- Ideal for single and double doors.
- Suitable for exposed locations.
- Use in conjunction with a weather deflector for very exposed locations.
- Available in Brass effect or Chrome effect finish.





### **OPEN OUT THRESHOLD**

- Designed for 58mm thick doors.
- Ideal for single and double doors.
- Suitable for exposed locations.
- Use in conjunction with a weather deflector for very exposed locations.
- Available in Brass effect or Chrome effectfinish.



NOTE: Door/Entrance Frames are delivered to site with threshold supplied loose, for on-site fixing. Actual threshold may differ from one shown. Door Frame sizes shown are nominal and are approx 5mm less than the size shown to allow for building in.

NOTE: Frames with Side Screen remain the same overall width regardless of door size. Door opening width is adjusted to suit.

NOTE: In order to comply with Document L, insulated, raised and fielded panels are available in doors, sidelights and entrance frames.

NOTE: Howarth's Mobility entrance door sets are designed to take a 2'10" door from Howarth's own range of High Performance timber doors which are 58mm thick.

Our timber doors will not meet the required opening if smaller than 2'10" wide.

We will automatically quote for 2'10" width if timber Mobility door sets are requested, unless otherwise stated.

NOTE: Mobility door sets must be fitted with 3'00" door to meet Lifetime Homes specification.



All Mobility frames are 2093mm high.

NOTE: Mobility Thresholds are available individually - please contact the Sales Office on 01469 530577.

## 79 SECURITHERM™ HIGH PERFORMANCE SINGLE DOOR SETS



WIDTH	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL
850		FE26		FNS26		FNX26
894	FN90		FNS90		FNX90	
900		FE28		FNS28		FNX28
925		FE29		FNS29		FNX29
950		FE21		FNS21		FNX21
1002		FE3O		FNS30		FNX30

### SECURITHERM™ HIGH PERFORMANCE SINGLE DOOR SETS WITH SIDELIGHTS





WIDTH	METRIC	IMPERIAL	METRIC	IMPERIAL
1194	FE120			
1228		FE1229		
1272	FE127			
1347	FE 135			
1378		FE1329		
1422	FE142			
1494	FE 150		FED 150	
1528		FE1529		FED 1529
1650	FE165		FED 165	
1800	FE180		FED 180	
1831		FE1829		FED 1829
1950			FED 195	
2100			FED210	

NOTE:

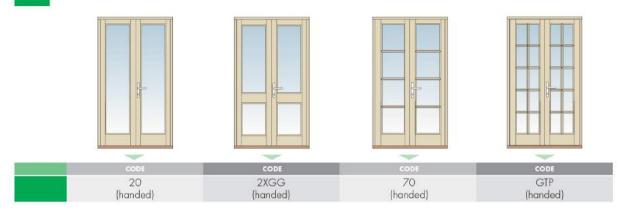
Please specify if OPEN IN or OPEN OUT is required.

Door and sidelight rebates accept 24mm (4-16-4) sealed units only.

In order to comply with Document L, insulated, raised and fielded panels are available in doors, sidelights and entrance frames.

NOTE: Door Frame sizes shown are nominal and are approx 5mm less than the size shown to allow for building in.
All illustrations above tables show exterior views.

### 81 SECURITHERM™ HIGH PERFORMANCE DOUBLE DOOR SETS



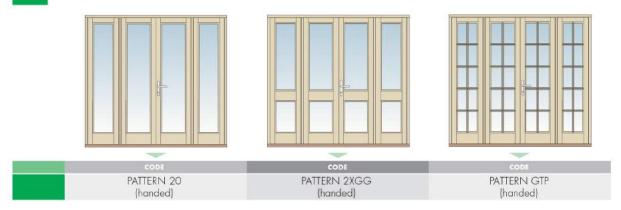
### Open Out Door Sets

WIDTH	DOOR SIZE	CODE
1194 M	1106 x 2000 x 58mm	FCP120
1494 M	1409 x 2000 x 58mm	FCP150
1255 M	3' 10" x 6' 6"x 2 ¼"	FC310

### Open In Door Sets

WIDTH	DOOR SIZE	CODE
1194 M	1106 x 2000 x 58mm	FNS120
1494 M	1409 x 2000 x 58mm	FNS150
1255 M	3' 10" x 6' 6"x 2 ¼"	FNS310

### SECURITHERM™ HIGH PERFORMANCE DOOR SETS WITH SIDELIGHTS



### Open Out Door Sets

WIDTH	DOOR SIZE	CODE
1800	1106 x 2000 x 58mm	FCP180
1950	1106 x 2000 x 58mm	FCP195
2100	1106 x 2000 x 58mm	FCP210
2250	1106 x 2000 x 58mm	FCP225
2400	1106 x 2000 x 58mm	FCP240

### Open In Door Sets

DOOR SIZE	CODE
1106 x 2000 x 58mm	FNS180
1106 x 2000 x 58mm	FNS 195
1106 x 2000 x 58mm	FNS210
1106 x 2000 x 58mm	FNS225
1106 x 2000 x 58mm	FNS240
	1106 x 2000 x 58mm 1106 x 2000 x 58mm 1106 x 2000 x 58mm 1106 x 2000 x 58mm

### **CHOICE OF DOOR STYLES**

At Howarth we pride ourselves on offering a comprehensive range of styles to choose from, to make matching any existing property style so much easier.

NOTE: Door and sidelight rebates accept 24mm (4-16-4) sealed units only. All Howarth door sets are 2093mm high.

NOTE: In order to comply with Document L, insulated, raised and fielded panels are available in doors, sidelights and entrance frames.

NOTE: Door Frame sizes shown are nominal and are approx 5mm less than the size shown to allow for building in. All illustrations above tables show exterior views.

## 83 TIMBER DOORS

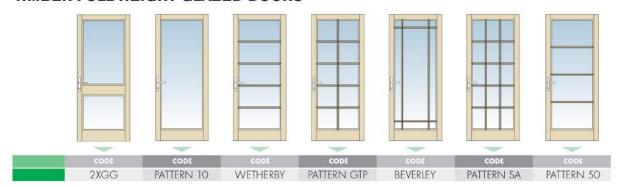
These doors are traditional in style and appeal, but technically up-to-the-minute, with specifications to meet the most demanding requirements of Part L. Howarth timber door sets incorporate 58mm thick doors, are fitted with 24mm low-E sealed units with drained and ventilated glazing beads and plant-on bars. Our timber doors are manufactured to meet the exacting

standards of Secured by Design (S.B.D.) thanks to the introduction of multipoint locking mechanisms, 'dog bolt' security hinges and the integral strength of timber.

Timber doors are no longer synonymous with high maintenance. All our timber

doors can be fully finished to the highest specification at our factory, offering a ten year decorative guarantee on painted Endurance frames (six years on Endurance stained frames), and a ten year guarantee on glazing units.

### TIMBER FULL HEIGHT GLAZED DOORS



### **TIMBER ONE PANEL DOORS**



### **TIMBER TWO PANEL DOORS**



NOTE: All fully finished door and entrance frames must be fitted using cleat fixing (see installation manual). All the above frames can be supplied in imperial sizes - prices on application. Door Frame sizes shown are nominal and are approx 5mm less than the size shown to allow for building in. All illustrations above tables show exterior views.

## TIMBER DOORS (CONTINUED)

(Near right) Photograph courtesy of Strongvox Ltd, Staplegrove Road, Taunton, Somerset.

(Far right) Waterstones Homes Ltd, Church Road, Pentyrch, Cardiff, Wales.





### **TIMBER THREE PANEL DOORS**



### **TIMBER SHORT PANEL DOORS**



### **TIMBER FULL HEIGHT PANEL DOORS**



NOTE: All fully finished door and entrance frames must be fitted using cleat fixing (see installation manual). All the above frames can be supplied in imperial sizes - prices on application. Door Frame sizes shown are nominal and are approx 5mm less than the size shown to allow for building in. All illustrations above tables show exterior views.

## 84 FRENCH DOORS

Howarth French doors are designed to complement our Timber door range and incorporate the same styling and design. Manufactured using the same methods as our Timber doors, our French doors are designed to comply with Part L.

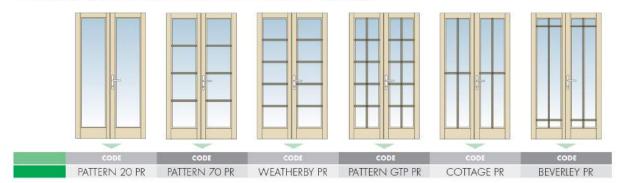
Howarth French doors offer an extended range of finishes

Improved manufacturing methods also allow us to offer extended guarantees of ten years on the paint finish and six years on the stain finish.

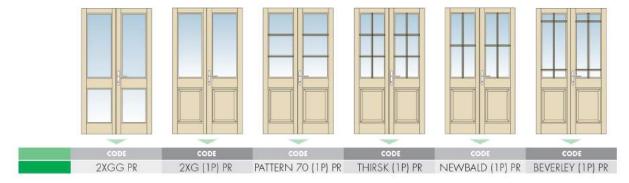
> (Right) Photograph courtesy of Strongvox Ltd, Staplegrove Road, Taunton, Somerset.



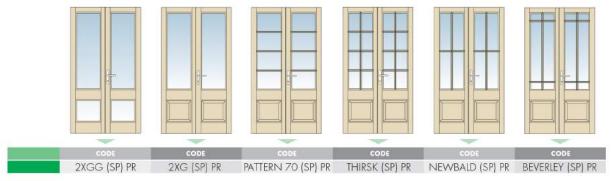
### **TIMBER FULL HEIGHT GLAZED FRENCH DOORS**



### TIMBER FRENCH DOORS with RAISED and FIELDED PANELS



### TIMBER FRENCH DOORS with SHORT RAISED and FIELDED PANELS



NOTE: All fully finished door and entrance frames must be fitted using cleat fixing (see installation manual). All the above frames can be supplied in imperial sizes - prices on application. Door Frame sizes shown are nominal and are approx 5mm less than the size shown to allow for building in. All illustrations above tables show exterior views.

## 85 TIMBER SIDELIGHTS

To complement our range of Timber doors and French doors, Howarth also manufactures a range of suited timber sidelights. Manufactured using the same techniques implemented in our Timber doors, these sidelights are designed to comply with Part L.

Howarth sidelights offer the same wide range of finish colours as our Timber doors and French doors as well as extended guarantees.

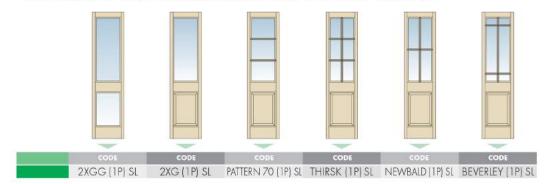
> (Right) Photograph courtesy of Ian and Karen Taylor, Hessle, East Yorkshire, self build project



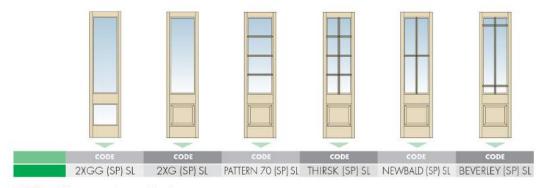
### TIMBER FULL HEIGHT TIMBER SIDELIGHTS



### TIMBER SIDELIGHTS with RAISED and FIELDED PANELS



### TIMBER SIDELIGHTS with SHORT RAISED and FIELDED PANELS



NOTE: All illustrations above tables show exterior views.

## 86 DOOR SET OPTIONS

### 1. Night Ventilators

Door frames, entrance frames and door sets do not have night ventilation fitted as standard. Please specify if door frames, entrance frames or door sets require ventilation.

#### 2. Sills

The standard sill width is 171 mm to allow the frame to be set back into the cavity to meet Part L Robust Construction Detail requirements. Other sill width options are 205mm extended sills (available at extra cost).

Howarth does not recommend extended door or entrance frame sills, as the extended width of the timber may make it unstable or liable to split. Therefore we do not guarantee extended sills.

NOTE: All sills for Howarth door sets are manufactured from Keruing and are designed to be left in a natural condition and should not be decorated as Keruing is not suitable for painting or varnishing.

### 3. Finishing options

Frames are available with the Endurance fully finished option,

NOTE: Frames are generally available in standard RAL colours except black. For availability of other darker shades, please contact the Sales Office on 01469 530577.

### Combination Door and Window Frames are available

### 5. Cavity Closers

Available from 75mm up to 150mm in width and are supplied in loose lengths. Brick ties are also available.

### Door furniture and locking mechanisms

A range of furniture options is available,
To give a high
standard of intruder resistance, the fitting
tolerances between the mushroom bolts
and the keeps are tight. Movement of the
door leaves during transport and
installation or as a consequence of natural
timber movement, may require adjustment
of the mushroom bolts. The mushroom
bolts have cam adjustment to allow for
purchaser on-site compensations.

### 7. Repair Kits for Fully Finished Doors

Includes paint or stain, brush, sandpaper, tube of filler and instructions. Will cover 0.5m<sup>2</sup>. (For repairs only)

#### 8. Opening Restrictor

Opening restrictors are available to prevent doors from opening too far. These are particularly useful in areas of high exposure where doors may otherwise be caught in high winds and damaged.

#### 9. Secured by Design

Securitherm high performance door sets are supplied to achieve PAS24:2012 Secured by Design requirements and are audited to ensure continuing compliance as part of our BSI Kitemark Scheme. Some sizes may exceed tested dimensions. For full details on which door sets meet S.B.D, please contact our Sales Office on 01469 530577.

#### 10. Cambered Heads

Produced from 25mm thick, non-laminated Redwood, cambered heads are available on request and will be supplied one per frame unless otherwise stated.

### 11. Perimeter Pinch Battens

For installing frames into timber frame buildings. These will be made from 46mm x 46mm non-laminated Redwood and will be fitted to the head and jambs of the frame unless otherwise stated.

### 12. Protective Wrapping

Frames are wrapped as standard in a clear cling film which permits visual inspection of the frame upon delivery.

### 13. Exitex Mobility Threshold

These are supplied as standard for single and double leaf door sets and are supplied taped to door jamb for site fixing.

#### 14. Quotation prices

Quotation prices do not include VAT which will be charged at the rate applicable at the time of delivery. Prices quoted are subject Howarth's Standard Terms and Conditions of Sale.

#### 15. Deliveries

All ancillary purchases are subject to a post and packing charge. Orders of £1,000 or less will be subject to a delivery charge.



(Above) Photograph courtesy of Ian and Karen Taylor, Hessle, East Yorkshire, self build project.