

# SOLEAL PY 55

DOOR



IMAGINE WHAT'S NEXT

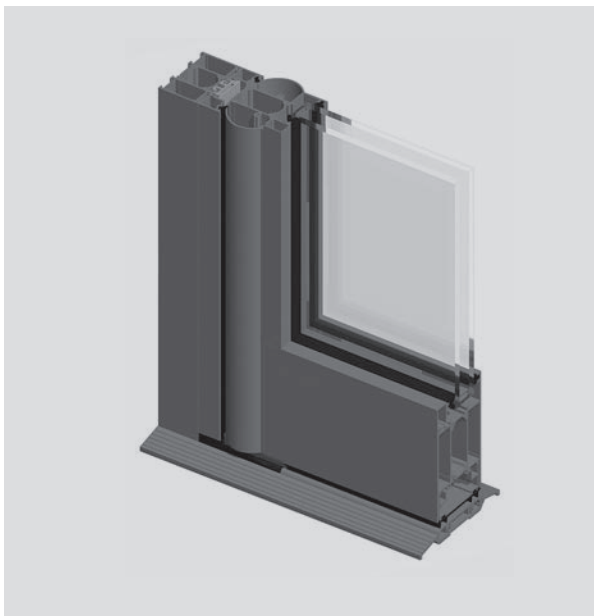
**TECHNAL**



## SINGLE ACTION, HINGED

### APPLICATIONS:

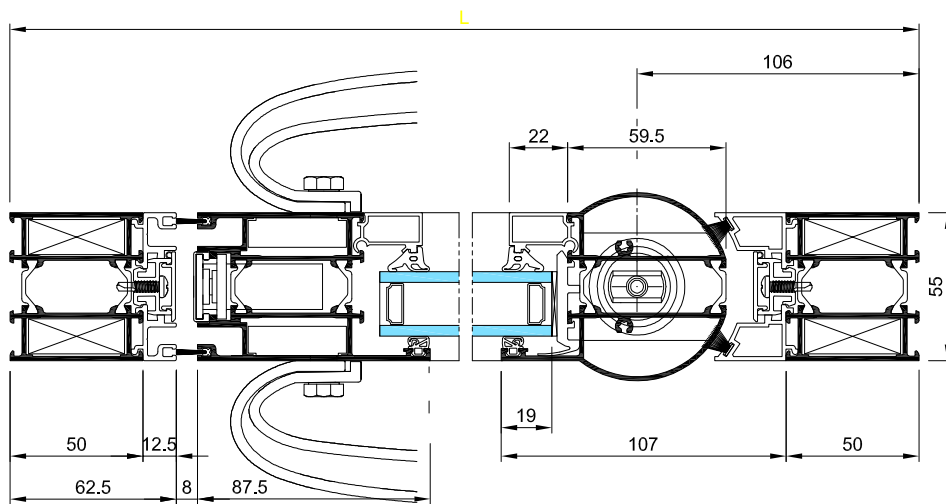
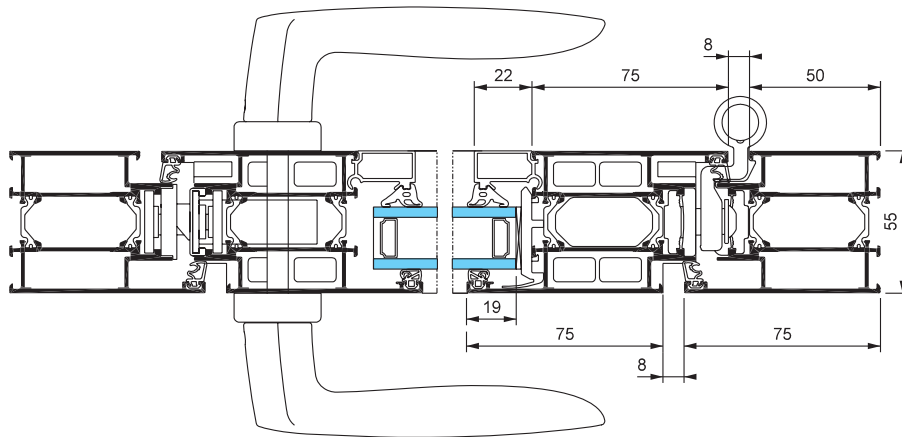
- Single action
- Single or double door leaf
- Composite frames



## SINGLE AND DOUBLE ACTION ANTI FINGER TRAP PIVOT

### APPLICATIONS:

- Single action, bulb stile
- Double action, bulb stile
- Anti finger-trap
- Single or double door leaf
- Composite frames









# SOLEAL PY 55 DOORS, A CHOICE OF SOLUTIONS



## BASIC CONCEPT

A module depth of 55mm allows the realisation of doors and door sets that are completely thermally broken, for integrating any opening option, single or double action.

This door allows designs with SOLEAL FY 65 windows and balcony doors. Installation detailing, trims and frames are in common with SOLEAL FY windows, balcony doors and sliders.

## A 2 IN 1 CONCEPT

The SOLEAL PY 55 door range offers two concepts for all your projects: single action hinged doors and single and double anti finger-trap doors with bulb stile.

The SOLEAL PY 55 thermally isolated door, with flat or disabled access thresholds, can be realised as a continuous frame opening leaf or with bottom rail (120mm visible face).

## A NEW GENERATION OF DOORS

SOLEAL PY 55 doors offers real thermal and weather performance which characterises the new generation of Technal doors. It performs above the requirements of current regulations, anticipating future standards.

# SOLEAL PY 55 DOORS, HIGH PERFORMANCE

SINGLE ACTION,  
HINGED



BULB STYLE ANTI  
FINGER-TRAP



# KEY FEATURES

## MULTIPLE APPLICATIONS

Two opening options to meet your project needs:

- Single action, hinged.
- Single and double action, anti finger-trap pivot.

## PERFORMANCE

- Thermal performance:
  - U<sub>w</sub> = 1.7W/m<sup>2</sup>.K, S<sub>w</sub> = 0.45, TL<sub>w</sub> + 0.55 (Double glazing U<sub>g</sub> + 1.1W.m<sup>2</sup>/K, g = 0.63 and TL = 0.8).
  - U<sub>w</sub> = 1.4W/m<sup>2</sup>.K, S<sub>w</sub> = 0.37, TL<sub>w</sub> = 0.47 (Triple glazing U<sub>g</sub> = 0.63 and TL = 0.73).
  - U<sub>w</sub> = 1.4W/m<sup>2</sup>.K, S<sub>w</sub> = 0.03, TL<sub>w</sub> = 0.0 (opaque panel U<sub>p</sub> = 0.7W/m<sup>2</sup>.K).
- Weather performance: A4-E6A-Vc3 (1 leaf open out, disabled access threshold)
  - Glazing infill: 6 – 42mm
  - Maximum weight per leaf: up to 150kg
  - Heavy traffic door, Class 8\* (tested to 1 million cycles).
  - \*Single action door and double action anti finger-trap door

## DESIGN

- Technal exclusive design push-pad handle.
- Concealed drainage at threshold, bottom rail and mid rail.
- Slim clamped hinges: 20mm visible face for three-part hinges.

## ACCESSIBILITY AND EASE OF USE

- Fittings readily applied across the offer.
- Integrated door closer: 90° hold-open.
- Commercial compliant thresholds.

## SECURITY

- Wide choice of locks.
- SOLEAL PY 55 range certified PAS24 and tested to BS EN1627 up to RC3.

# SOLEAL PY 55 DOORS, A BESPOKE DESIGN

## A WIDE CHOICE OF CLOSING MECHANISMS



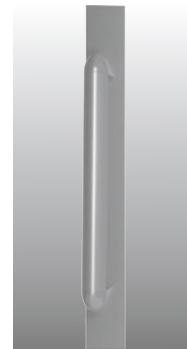
Technal exclusive-design handle with lock



Stainless steel handle



Push pad handle, Technal exclusive design



Triangular push bar

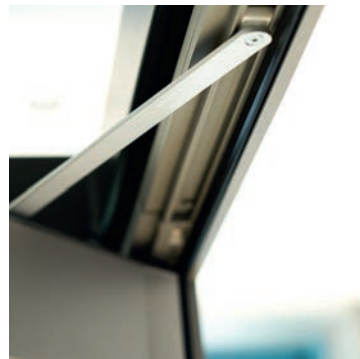


Triangular offset push bar

## DISCREET FITTINGS



Slim hinges



Concealed closer



Electromagnetic lock





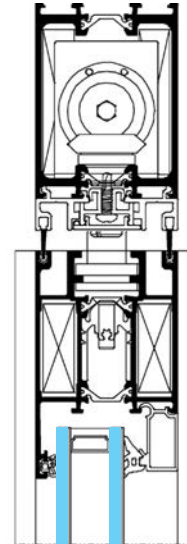
# SOLEAL PY 55 DOORS, ACCESSIBILITY

## CONCEALED CLOSER

Concealed overhead closer set into the header bar for discrete closing assistance of single and double action bulb stilepivot, tube and single action doors (to current regulations).

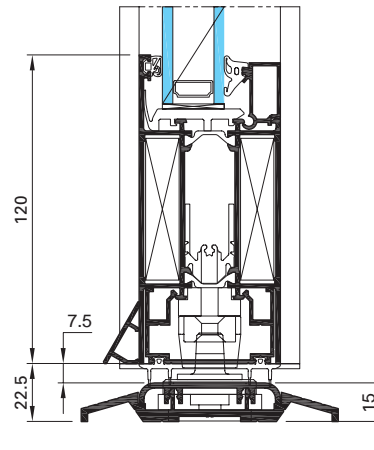


Concealed closer



## DISABLED ACCESS THRESHOLDS

The disabled access threshold for the SOLEAL PY 55 door achieves regulations for door and balcony door access, while maintaining weather performance and meets regulations with a height of 15mm.



# SECURITY, A COMPLETE OFFER

## STANDARD LOCKING MECHANISM

- ½ turn deadbolt.
- Roller lock and deadbolt.
- 2-point cylinder lock.
- 2-point lock with square spindle.

The continuity of the thermal break is ensured over the entire height of the door by a front plate lock insulated cover pre-assembled and a rigid insulating rod (patented system).

## SECURITY RATED

SOLEAL PY door security rating results obtained;

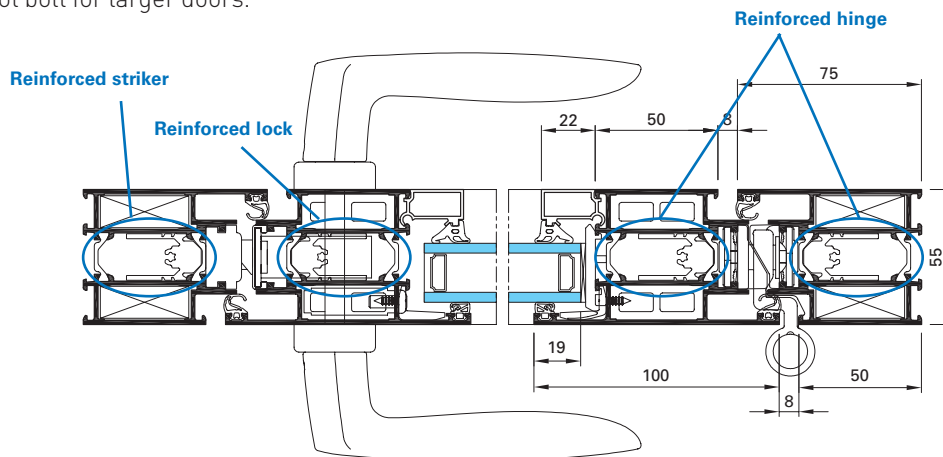
- Hinged single doors.
- Hinged double doors.
- Pivot doors.

Through concealed reinforcement of certain components such as hinges, latches, locks and hooks, whilst initial aesthetics are maintained. Utilising anti snap and anti bump cylinders.

## MULTIPOINT LOCKING

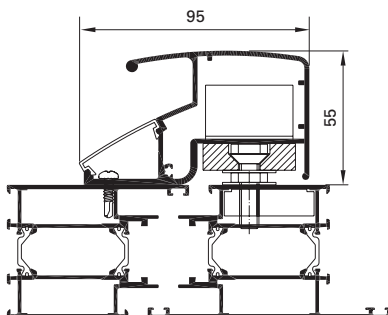
- The offer allows additional locking points to be added as required, hook lock or top and bottom shoot bolt for larger doors.

**SOLEAL PY range certified to PAS24 and Class RC3 to BS EN-1627-30.**

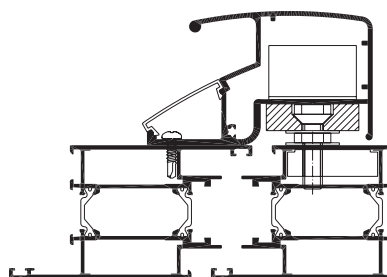


## ELECTROMAGNETIC LOCKING

With the single action version (1 or 2 leaves) connected to an access control, the electromagnetic pad holds the door in the lock position. The profile that houses the pad also serves as a pull handle up the height of the door.



Electromagnetic lock on the outer frame



Electromagnetic lock on the opening frame

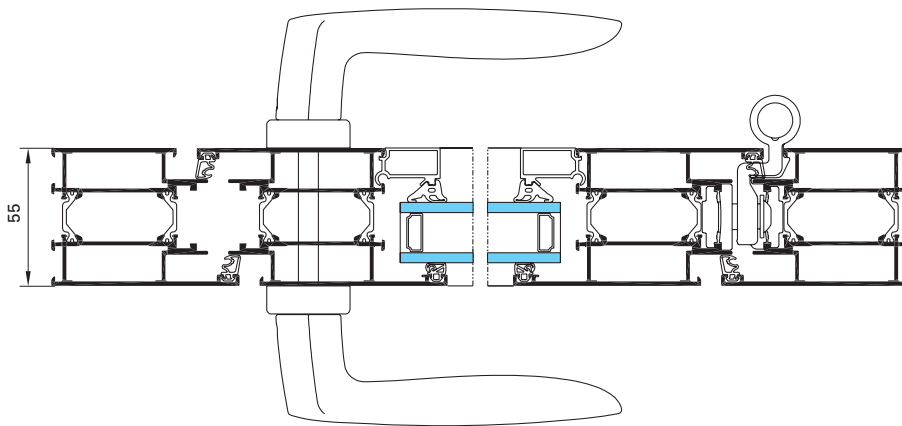


Concealed electromagnetic lock on the opening frame

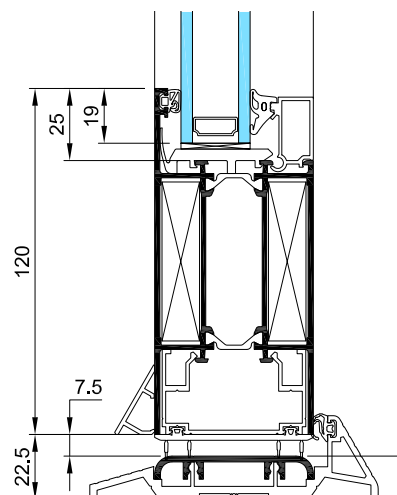
# SINGLE ACTION, HINGED

Transom-mullion frames are realised with double aluminium connectors. Steel reinforced uprights offer the option to create large-sized composite door sets.

## SINGLE ACTION DOOR



## SINGLE ACTION DOOR WITH BOTTOM RAIL AND CONTINUOUS THRESHOLD

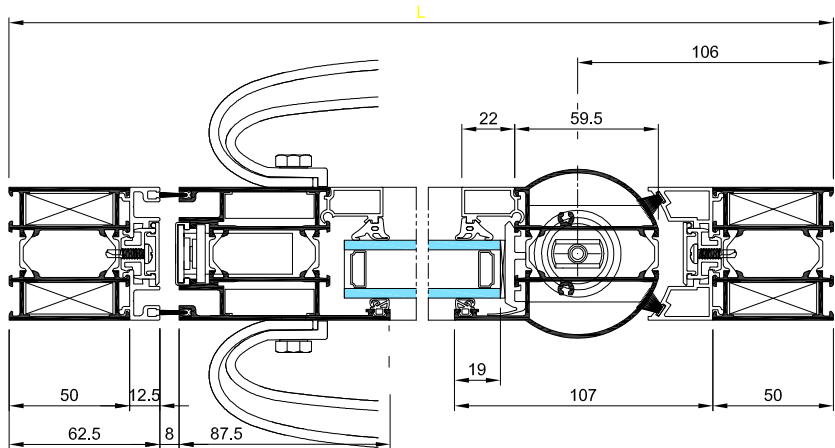
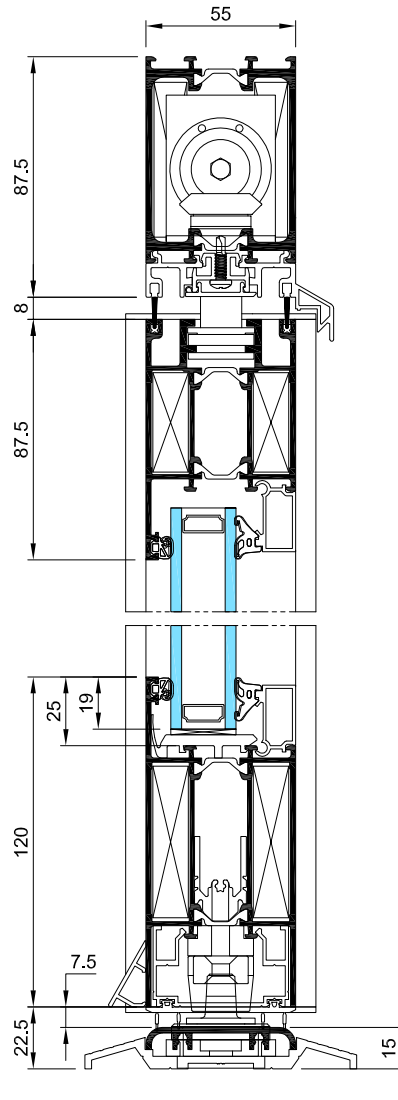
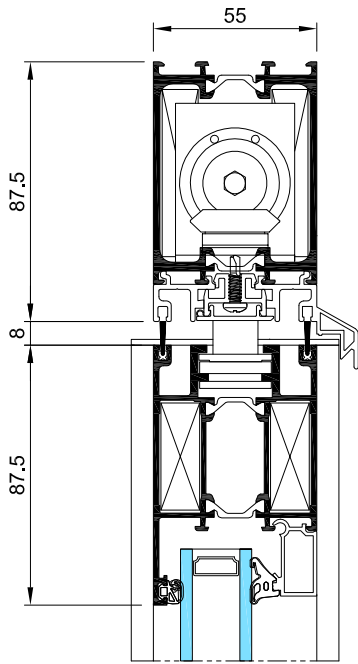




# ANTI FINGER-TRAP

The pivot door is available in single or double action. The SOLEAL PY 55 bulb stile version makes it ideal for specification in all public buildings such as schools, restaurants, theatres, where anti finger-trap protection is a priority.

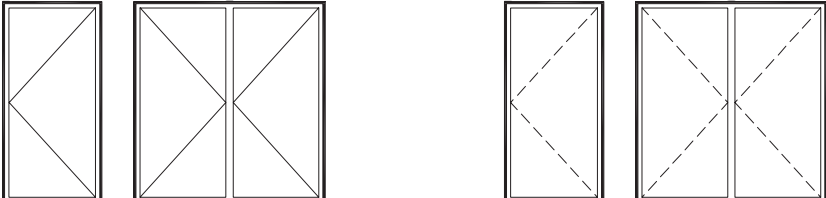
- An optional section fitted to the top frame can be mounted inside or outside to dictate the opening direction.
- The door can be installed with or without an integrated closer allowing free swing or face fixed closers to be fitted as an alternative.





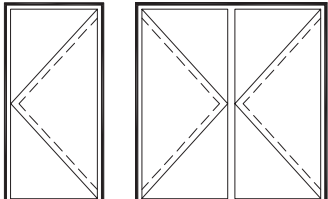
# APPLICATIONS

## SINGLE ACTION INWARD-OUTWARD OPENING



1 leaf - 2 leaves

## DOUBLE ACTION

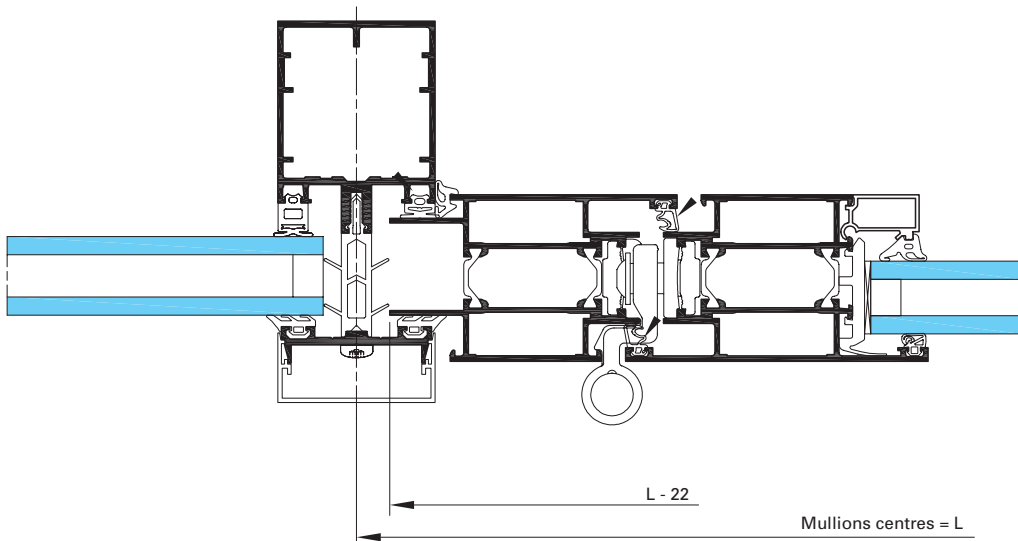


1 leaf - 2 leaves

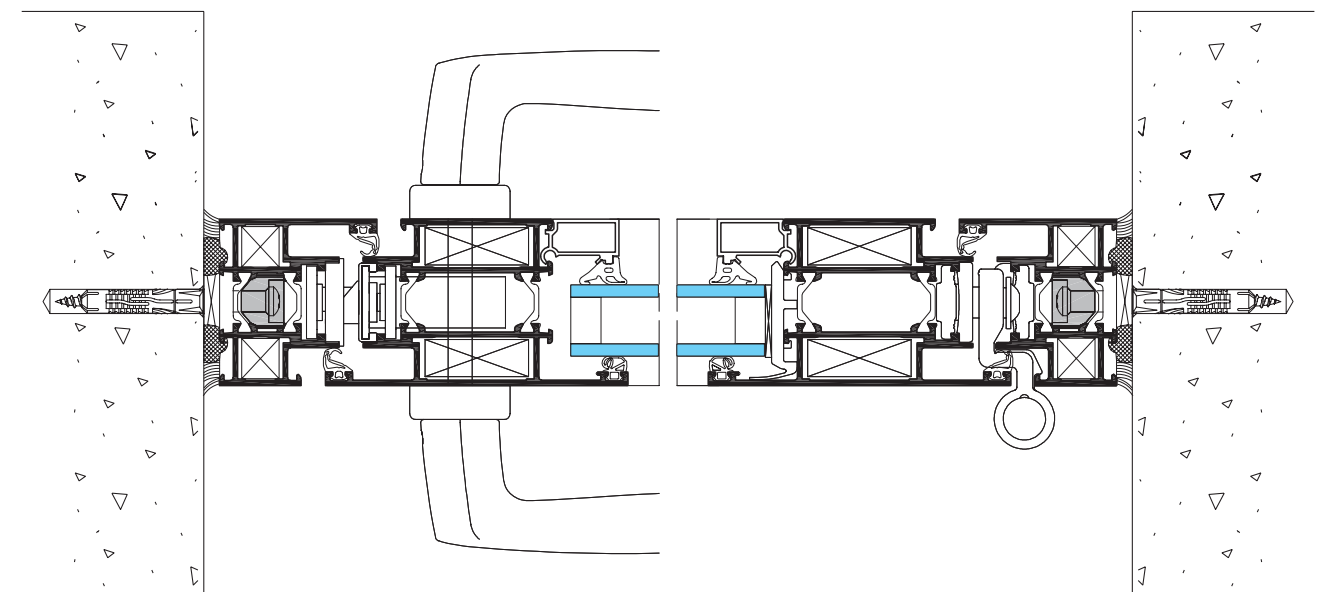


# INSTALLATION

INSERTED IN TO MX CURTAIN WALLING



DIRECT FIXED







## MATERIALS AND COMPONENTS

As with all Technal façade systems, only the highest quality materials and components are used for low maintenance and performance over time:

- Aluminium profiles are extruded from alloys 6005 T6, 6063 T6 or 6060 T5 to BS EN 12020, BS EN 573-3, BS EN 515 and BS EN 775-1 to 9.
- Accessories are cast from Zamak 5 or A-S9G03 to BS EN 12844.
- All glazing gaskets are EPDM SH 60-75.
- Polyamide thermal breaks are extruded from PA6-6 (0.25 FV).
- Screws are austenitic stainless steel.

## FINISHES AND COLOURS

A wide range of finishes is available to meet individual project requirements, complement existing buildings and offer additional design freedom for architects and specifiers:

- Stoved polyester powder coated finishes in a wide palette of colours and in accordance with BS 6496.
- Natural self-colour or Anolok anodised in accordance with BS EN 12373-1:2001 and BS 3987.
- Single and dual colours.

# PERFORMANCE

## WEATHER PERFORMANCE (AEV)

### SINGLE ACTION OPEN OUT DOOR ON HINGES, REBATED COMMERCIAL THRESHOLD

Frame	Height x width (mm)	Classification
1-leaf door	2400 x 1100	A4-E7A-VC3
2-leaf door	2400 x 2400	A3-E5A-VA3

### SINGLE ACTION OPEN IN DOOR ON HINGES, REBATED COMMERCIAL THRESHOLD

Frame	Height x width (mm)	Classification
1-leaf door	2400 x 1100	A3-E4B-VC3

### DOUBLE ACTION PIVOT DOOR, DISABLED ACCESS COMMERCIAL THRESHOLD

Frame	Height x width (mm)	Classification
1-leaf door	2400 x 1100	A2-E2A-VC2

## THERMAL PERFORMANCE (UW)

### THERMAL PERFORMANCE – Uw\*

	Glazing Ug (W/m <sup>2</sup> .K)	Door Uw (W/m <sup>2</sup> .K)	Glazing Ug (W/m <sup>2</sup> .K)	Door Uw (W/m <sup>2</sup> .K)	Insulation panel Up (W/m <sup>2</sup> .K)	Door Uw (W/m <sup>2</sup> .K)
Triple glazing	0.6 + warm edge spacer	1.4	0.6 + warm edge spacer	1.5	0.7	1.3
	0.8	1.6	0.8	1.7	0.8	1.4
Double glazing	1.0 + warm edge spacer	1.6	1.0 + warm edge spacer	1.8	1.0	1.5
	1.1 + warm edge spacer	1.7	1.1 + warm edge spacer	1.8	1.2	1.7
	1.0	1.7	1.0	1.9	1.4	1.8
	1.1	1.8	1.1	1.9		
	1.2	1.8	1.2	2.0		
	1.3	1.9	1.3	2.0		
	1-leaf door, glazed L x H = 1.25 m x 2.18 m		2-leaf door, glazed L x H = 1.53 m x 2.18 m		1-leaf door, infill panel, L x H = 1.25 m x 2.18 m	

\*Thermal performance using thermal improvement foam in glazing rebate

# PERFORMANCE

## THERMAL PERFORMANCE (SOLAR FACTOR AND LIGHT TRANSMISSION)

THERMAL PERFORMANCE - SOLAR FACTOR AND LIGHT TRANSMISSION				
Sg Solar factor of glazing only or with sun protection	Sw solar factor absorption according to section colours		TLg light transmission of glazing only or with sun protection	TLw light transmission of window
	0.4 white, yellow, orange, light red	1.0 black, dark brown, dark blue		
1-leaf single action door : L x H = 1.25 m x 2.18 m			0.1	0.07
0.1	0.08	0.10	0.2	0.14
0.2	0.15	0.17	0.3	0.21
0.3	0.22	0.24	0.4	0.28
0.4	0.29	0.31	0.5	0.35
0.5	0.36	0.38	0.6	0.42
0.6	0.43	0.45	0.7	0.49
2-leaf single action door : L x H = 1.53 m x 2.18 m				
0.1	0.08	0.10	0.1	0.06
0.2	0.14	0.17	0.2	0.12
0.3	0.20	0.23	0.3	0.19
0.4	0.27	0.29	0.4	0.25
0.5	0.33	0.35	0.5	0.31
0.6	0.39	0.42	0.6	0.37



IMAGINE WHAT'S NEXT

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By  Hydro