

Specification

Scope

This specification details materials, construction, finish and size limitations for the Crown Entrance Door system. This range is designed to meet high performance requirements in a variety of applications. The suite of profiles can be constructed to form single or double, open in or open out doors.

Materials

Aluminium profiles are extruded from aluminium alloy 6060 T6 complying with the recommendations of BS EN 755-9:2001. Polyester powder coat finishes are available to BS EN 12206-1:2004 in a wide range of colours. Anodised finishes are to BS 3987 Grade AA25 etch silver as standard - other anodised finishes may be available on application.

Weatherstripping is a combination of TPE seal and polypropylene backed woven pile set in undercut grooves in the sash and frame.

The thermal barrier is achieved using two polyamide extrusions separating the internal and external faces.

Construction

Outerframe members are mitre cut at 45° with stile and rails square cut. Corners are reinforced with aluminium corner cleats.

All joints shall be sealed during fabrication against water entry.

Assembly and Installation

Detailed instructions are provided in this publication, which must be strictly conformed to. Only parts supplied by Sapa should be used in the manufacture of Crown Entrance Doors.

Thermal Performance

Crown Entrance Doors can meet and surpass the area weighted average U values stipulated in Part L of the Building Regulations. Lower U-values can be achieved using double glazed units with enhanced thermal insulation, such as 'soft coat' low emissivity glass, argon gas filling and thermally enhanced spacer bar.

Hardware

Doors are hung on bespoke aluminium hinges with stainless steel pins and nylon bushes, and incorporate an integral high security feature. Locks are of eurogroove construction with 3 hooks, central latch, and full length stainless steel faceplate. An optional integrated 5 lever auxiliary lock is also available. On double doors the slave leaf is secured by means of a finger operated bolt at head and cill or central gearbox operated shootbolt.

Die cast handles are available in a variety of finishes. Cylinders supplied in kits are Kitemarked to BS EN 1303. All keeps are adjustable and are manufactured from zinc plated pressed steel.

Glazing

Glass must conform to BS6262 for thickness and type. Insulating glass units of 24mm, 28mm can be accommodated. Glass is set against extruded synthetic rubber gaskets retained in undercut grooves within the aluminium profile, or with a self-adhesive backing. Final retention of the glass is achieved by the application of a wedge gasket between the inner face of the glass and bead or frame.

Compliance with the requirements of all current Regulations and Standards is the responsibility of the manufacturer.

Sapa's policy is one of continual system development and we reserve the right to incorporate design improvements and changes. Every effort is made to ensure that all details are correct at time of publication. However, it is the responsibility of the customer to check the accuracy of the relevant facts and information before entering into any contract or other commitment. Up to date information is freely available from the Sapa Building Systems Webshop.

All Products and systems which Sapa supply are supplied subject to Sapa's standard Terms and Conditions of Sale current from time to time.



Specification

Performance (Thermal)

When calculated in accordance with BS EN 10077-2, the Crown entrance door will achieve 1.8 W/m²K thermal transmittance, using standard door sizes and glazing configurations shown in the table below.

Performance (Air & Water)

When tested in accordance with BS6375:Part 1:2009, the products listed in this manual, when manufactured, installed and glazed strictly to the enclosed details, will meet the following UK exposure categories:-

<u>Single Doors</u>		<u>Std. Threshold</u>	<u>Low Threshold</u>
Open In	Water	Class 5A (200 Pa)	Class 3A (100 Pa)
	Air	Class 2 (300 Pa)	Class 2 (300 Pa)
	Wind Res.**	Class 3 (1200 Pa)	Class 3 (1200 Pa)

<u>Double Doors</u>		<u>Std. Threshold</u>
Open Out	Water	Class 8A (450 Pa)
	Air	Class 2 (300 Pa)
	Wind Res.**	Class 3 (1200 Pa)

** Exposure category varies with Width/Height of door and mullion / transom used, as these are the only unsupported members. An accurate figure can be obtained using BS6399:Part 2 calculations.

		Glass Centre Pane & Edge Spacer Spec						
		1.0		1.1		1.2		
		Warm Edge	Super Spacer	Warm Edge	Super Spacer	Warm Edge	Super Spacer	
75mm Frame	Crown Single Door Standard Threshold - Open In	✓	✓	✓	✓	✓	✓	
	Crown Double Door Standard Threshold - Open In	✓	✓	✓	✓	✓	✓	
	Crown Single Door Low Threshold - Open In	✓	✓	✓	✓	✓	✓	
	Crown Double Door Low Threshold - Open In	✓	✓	✓	✓	✓	✓	
	Crown Single Door Standard Threshold - Open Out	✓	✓	✓	✓	✓	✓	
	Crown Double Door Standard Threshold - Open Out	✓	✓	✓	✓	✓	✓	
	Crown Single Door Low Threshold - Open Out	✓	✓	✓	✓	✓	✓	
	Crown Double Door Low Threshold - Open Out	✓	✓	✓	✓	x	✓	
	52mm Frame	Crown Single Door Standard Threshold - Open In	✓	✓	✓	✓	✓	✓
		Crown Double Door Standard Threshold - Open In	✓	✓	✓	✓	✓	✓
Crown Single Door Standard Threshold - Open Out		✓	✓	✓	✓	✓	✓	
Crown Double Door Standard Threshold - Open Out		✓	✓	✓	✓	✓	✓	

Table calculated using standard door size configurations to BR443/EN14351

Single Door :- 1230 wide x 2180 high
Double Door :- 2000 wide x 2000 high



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Size Limitations

All sizes given are in millimetres, and relate to the overall size of the doorset.

75mm Outer Frame

Single Doors	Minimum		Maximum	
	Width	Height	Width	Height
Std. Threshold	600	1879	1074	2230
Low Threshold	600	1860	1074	2211

Double Doors

Std. Threshold	1133	1879	2082	2230
Low Threshold	1133	1860	2082	2211

52mm Outer Frame

Single Doors	Minimum		Maximum	
	Width	Height	Width	Height
Std. Threshold	589	1868	1063	2219

Double Doors

Std. Threshold	1122	1868	2070	2219
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Maximum Leaf Weight	75kg
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