# Smart Systems Ltd

Tel: 01934 876100

## L20 DOORS/SHUTTERS/HATCHES

### 280 . . . . . . DOORS

Smart Systems are a major supplier to the window and door fabrication industry and are active members of The Council for Aluminium in Building (CAB) and members of CWCT.  
Smart Systems aluminium and composite profile product range includes, doors, windows, glazed screens, curtain walling, roof glazing and conservatories, for both the commercial and domestic markets. An extensive range of ancillary items such as balustrades is available to complement each product range.   
Door and door frames are manufactured from grade 6060/6063 T5/T6. Size tolerances are in accordance with DIN and BS standards.  
Co-extruded profiles and EPDM seals are tested in accordance with DIN 7863, TV 110, NFP 85301, ISO 3994. Thermal breaks are formed with polyamide strips PA 6.6 25 reinforced with glass fibre, fitted between aluminium extrusions.   
Profiles can be Electrostatic powder coat finished in a range of RAL colours to APA Qualicoat guidelines with the option of BI-colour, different internal and external colours. Other finishes include anodised in satin or bronze colours with EWAA/EURAS-Qualanod quality label. Powder-coated woodstructure finishes are available on request.

#### Alitherm 47 Door

Designed for use as open out or open in, single or double doors, internally or externally beaded, with sidelight options, for domestic and light commercial applications.  
Door and door frames are extruded from aluminium alloy 6060/6063 T5/T6 and comply with the recommendations of BS EN 12020-2; 2001/BS 755-9: 2001. Profiles can be Electrostatic powder coat finished in a range of RAL colours to APA Qualicoat guidelines with the option of BI-colour, different internal and external colours. Other finishes include anodised in satin or bronze colours with EWAA/EURAS-Qualanod quality label.  
All doors are hung on aluminium butt hinges and fitted with three point locking mechanisms.  
Glazing conforms to the requirements of BS 6262 and Part ‘N’ of the Building Regulations for both thickness and type. Weatherseals are EPDM set in undercut channels.  
Internal or external bead and gaskets will accommodate 24mm, 28mm and 32mm units.  
Doors are manufactured according to customer requirements from a range of standard profiles and are designed to incorporate a range of options, therefore it is advisable to contact Smart Systems technical design department early in the design process.  
Doors are manufactured to the required design to within the following maximum limitations (subject to location).  
Single door – Max width 900mm. Max height 2400mm.  
Double door – Max width 1800mm. Max height 2400mm.  
Max weight 70kg, or 80kg with additional hinge.  
Subject to agreement it is possible to exceed these limitations depending on design criteria, contact Smart Systems Technical Department for details.  
Consult Smart Systems Ltd technical literature for details. Smart Systems Ltd can also provide design and specification guidance and it is recommended that they are consulted early in the design process.

**Manufacturer**: Smart Systems Ltd. Arnolds Way, Yatton, North Somerset BS49 4QN. Tel: 01934 876100. Fax: 01934 835169. Email: sales@smartsystems.co.uk Web: www.smartsystems.co.uk   
**Product reference**: Alitherm 47 Door   
**Materials**: All profiles are extruded from aluminium alloy 6060/6063 T5/T6 and comply with the recommendations of BS EN 12020-2; 2001/BS 755-9: 2001. Thermal breaks are formed with polyamide strips PA 6.6 25 reinforced with glass fibre sections capable of withstanding temperatures up to 200°C for over painting.  
**Thermal**: All doors, in conjunction with a suitable glazing specification, to achieve an average project U-value to meet the current requirements of the approved Building Regulation Document L1/L2 for England and Wales. Target window U-value to be 1.8 W/m²K.   
**Structure**: All structural profiles to be designed to meet CWCT guidelines.   
**Construction**:  
All doorsets shall be manufactured, installed and glazed in strict accordance with Smart Systems instructions and guidelines as set down in the appropriate technical literature, details and specifications.Depth of outer frame sections shall be 47 mm incorporating two 22mm polyamide thermal break sections within the profiles.  
All outer frame and door members to be 45° mitred corner construction, reinforced by means of extruded aluminium cleats and stainless steel corner braces.  
All corner joints to be secured by gluing and mechanical corner cleats.  
All mullions and transoms to be cut/shaped and secured using stainless steel screws driven into integral screw ports within the sections.  
All joints to be sealed during construction using suitable 'small gap' sealant.  
It is recommended that the door system be drained and ventilated in accordance with Smart Systems Technical Manual.  
Drip bar shall be used to all doors.

**Finish as Delivered:**   
**Internal Colour**: White.   
**External Colour**: White.

**Glazing details**: Glazing shall be factory fitted as section L40.  
Windows shall be glazed externally chamfer beaded.  
Unit thickness. Overall thickness of 28 mm.  
All doors to be dry glazed using shuffle extruded aluminium beads and EPDM extruded gaskets.

**Ironmongery / Accessories:**No additional Ironmongery or Accessories required.

**Fixing**:  
All fixings to be in strict accordance with the relevant British Standards, including BS 6262, and shall ensure the door frame is retained securely within the opening without incurring any damage or distortion to the door frame.  
Generally, fixings to be positioned 150mm from each corner and each mullion/transom and at centres not exceeding 600mm.  
Fixing lugs/straps only to be used where they can be suitably concealed to approval.  
All fixing of door frames to the supporting structure to be achieved using a suitable lug and/or frame anchor fixing method capable of accommodating all applicable loads, deflection, tolerances and expansion expected on site.   
Details of the proposed fixing method shall be submitted to the project engineer for approval prior to installation.