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Doors, Windows & Architectural Hardware



Door dilemmas

Malcolm Stamper at SAS International advises specifiers of the considerations to be made when choosing doors...

When specifying doors, it is often the finish, material and colour that immediately come to mind. However, whether in a new build or refurb project, the Building Regulation requirements presented at the design stage demand equal attention from the outset.

Approved Document M of the Building Regulations 2004 (Access to and use of buildings) and Code of Practice BS 8300: 2001 (Design of buildings and their approaches to meet the needs of disabled people) set out provisions which must be made in both the public and private sector. The provisions include the following:

- > Visual contrasts between doors, door frames and the surrounding structure, and between door faces and door edges, which is defined by the document as a difference in light reflectance values exceeding 30 points.
- > Widths of access routes and doorways. The effective clear width is the width of the opening measured at right angles to the wall in which the door is situated.
- > All entrance doors and internal doors, where the door leaf or side



panel is wider than 450mm, other than for reasons of security, include a vision panel. The vision panel should be installed towards the leading edge of the door, and its vertical dimensions should include the minimum visibility requirement. Vision panel options must meet fire performance to 30 or 60-minute fire resistance where required.

- > Limiting door opening forces allowing independent access through a building.

Fire and acoustic performance

To achieve full fire performance, doors must be installed within an appropriately fire-rated frame, the door and frame must be tested in conjunction with each other and fitted with all necessary intumescent materials along with an approved self-closing device. A 30-minute or 60-minute rating ensures the door withstands collapse, preventing the passage of flames and hot gases to other areas.

Acoustic attenuation is an important consideration and can be achieved to meet the requirements of Approved Document E of the Building Regulations 2003. A sound reduction index of up to Rw 33dB can be achieved when doors are fitted with appropriate perimeter and threshold seals.

Materials

Wood-based products can be made from timber which is supplied from sources that comply with either the Forestry Stewardship Council (FSC) chain of custody, the Programme for the Endorsement of Forest Certification Schemes (PEFC) or any other source that complies with the FSC standard for non FSC-Certified controlled wood.

Over 200,000 buildings around the world are certified under BREEAM which requires that all timber is legally and responsibly sourced. Check that a manufacturer and supplier holds both FSC and PEFC certification and is able to provide full chain of custody.

CPL (Continuous Pressure Laminate) faced doors provide a durable, easy-to-clean product which also has consistent colour and uniformity of grain providing an economical solution for areas with several doors or double doorsets. CPL door cores should also be FSC approved.

Natural wood veneers are also a popular choice and are available from high-end manufacturers, they can include Ash, American Cherry or Black Walnut and Oak.

A much wider range of natural wood veneers are available through bespoke door manufacturers which offer greater flexibility in the selection of veneer species, the veneer cut and the assembly of the lay-on. The use of laser cut inlays can enable logos and motifs to be incorporated into the door finish. In addition, paint finishes can also be applied, from priming costs through to fully finished RAL colours or British Standard ranges.

ENQUIRIES

For more information about SAS International use any of the enquiry methods below quoting number BC272

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