



Composite Door Specification

- 1. Colour options:** White, Oak and Mahogany, Blue Green, Red
The client has the option to mix different colours to the front and rear of the door slab
- 2. Styles :**

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|  |  |  |  |  |
| Georgian Solid | Georgian Glazed | Georgian Glazed Fan | Victorian Glazed | Victorian Half Glazed |

- 3. Glazing method:** The glazing method for the DORWIN door ensure that the glass is an integral part of the door leaf. This removes the need for glazing cassettes thus removing the problems of colour matching, differential expansion and contraction which is inevitable when different materials are used, retains the appearance of a traditional timber door, improves security and is capable of being re-glazed.
In addition this method of glazing is superior to cassette glazing particularly with relation to air and water resistance and security.
- 4. Core:** The core is manufactured in Italy and supplied by ACELL <http://www.acelldoors.co.uk/specification.html> . The core constructed using highly twist and warp resistant laminated timber for the sub-frame, a proprietary foam with the following properties.
 - ? **density** 120kgs per cubic metre (about three times denser than is currently used in other cores) in addition the foam core is
 - fire resistance** Tested to BS 476 part 22 no emission of toxic fumes ,half hour rated
 - ? **bonding** The open cell nature of the foam helps to create a physical bond as the adhesive is allowed to penetrate in to the foam, making delamination virtually impossible.
 - ? **Thermal Insulation** K value 0.033 Wm²c
- 5. Door skins**
Skins are GRP of minimum overall thickness of 1.5 mm.

All material used are UV stable – through colour and scratch resistant.

All sheet material used is Pre moulded.

The mouldings are proportioned identically to wood mouldings in order to preserve architectural balance and aesthetics. The skins are moulded on one mould for the narrower door and on a wider mould for the wider door. This avoids finishing up with an incorrect (too small or too wide style)

6. Door leaf

All approved locks & hinges can be fitted on the leaf.

The laminated sub frame is across the thickness of the door therefore not more than 3 mm of timber is exposed which is sealed with a coat of paint before being covered by a glued aluminium section (Fast Fit).

The leaf is a combination of the core with its integrally engineered glazing system all glued together and pressed into a monolithic panel that when hung in a U-PVC reinforced frame meets the most stringent requirements for dimensional stability – bowing – warping and security.

7. Tests

Hygrothermal and thermal distortion on two door sets. Test 10 & 11 of BS D171: 1987 (European prEN 1121). Temperatures used 28/40 & 28/-10, then 28/50 & 28/60°C. “Both the doors supplied by Acell Doors performed excellently and fully satisfied the limiting values for test DD171:1987 Test 10 (Hygrothermal distortion) and Test 11 (Thermal distortion). The new European standard (prEN 1121) is only in draft form, but it is likely that the classification, would be Class 3 (Class 3 being the highest level of performance). If the cooling phase of the current test procedure is considered, the classification of the doors would be Class 2”.

19/01/98

Building Research Establishment - BRE

TCR 8/98

Thermal distortion (heating) tests on two external door sets. Temperatures used 28/60,70,80°C. (In this assessment high “hot” temperatures have been used, higher than specified in Dd171 and prEN 121. Therefore, the assessment procedure used on the Acell composite doors is more than the procedure of prEN112”. Both PVC doors were assigned a class 3 rating for all test performed at 60, 70 and 80°C.

01/06/98

BRE TCR 129/98

Thermal distortion test (heating & cooling). Temperatures used 28/60,70, -10°C. For the heating and cooling test, then 70°C both doors were assigned class 1, but at 60°C one door achieved class 2 and the other class 1 (marginally outside class 2). For the heating phase both doors reached class 3 at both high temperatures.

01/06/98

BRE TCR 130/98

PAS024-1 security performance tests. "Specimen succeeded in reaching the requirements of PASO24-1: Enhanced security, A6 Mechanical loading test, A9 soft body impact tests & A10 hard body impact test".

20/04/99

Cego Framework

GGF 473

PAS 24-1:1999. Platinum range door. All points passed.

24/02/00

Winkhaus Laboratories

No.225

PAS 23-1:1999. Platinum Victorian door.

13/11/00

Fullex Ltd Testing Services

FT 123

PAS 24-1:1999 Amendment 1 & Resolutions (21/02/01). Victorian Silver door -TOP Glazing

24/07/01

Winkhaus Laboratories

No.284

PAS23-1:1999. Amendment 1 & Resolutions (21/02/01). Victorian Platinum door. -TOP Glazing

24/05/01-20/06/01

Chiltern Dynamics

Chilt/P01022