



02 EXTERNAL WINDOWS & DOORS

General

In order to achieve the calculated energy ratings for each dwelling as outlined in this report, the window suppliers must supply a test certificate for the installed windows to identify the exact performance of the proposed windows to be installed.

In order to comply with DEAP procedures the test report must be provided for all window types included in a final BER assessment. A test cert must include measurements of thermal transmittance for the doors and windows should be made according to IS EN ISO 12567-1. Alternatively, U-values of windows and doors may be calculated using IS EN ISO 10077-1 or IS EN ISO 10077-2.

This test data is required for windows and external doors and must be calculated by an accredited source/test laboratory. Calculations from an uncertified manufacturer will not be accepted.

The following should be borne in mind regarding use of product test data:

- Test certificates must clearly relate to the actual product in question
- Installation instructions in the test certificate on which the stated performance depends must be adhered to
- Test certificates must be in English or be accompanied by a certified English translation. The translation can be from the accredited test house or from a professional translator listed by the Irish Translators and Interpreters Association or international equivalent
- The relevant test performance standard must be stated on the test certificate
- The test laboratory must be accredited. This may be demonstrated as follows:
 - The governing accreditation body for the test laboratory can be found under <http://www.european-accreditation.org/>. This governing body may list the test laboratory as accredited
 - The accredited laboratory may be found under <http://ec.europa.eu/enterprise/newapproach/nando/>
 - Performance data on “CE marked” literature is acceptable provided that the literature refers to the relevant test performance standard

Raw Material

The windows shall be manufactured from laminated pine profiles specially developed for use in high performance external joinery products. Laminated Scantlings shall carry product certification from an accredited state laboratory and shall be produced under a CSN ISO9002 approved Quality System and also satisfy German DIN standards.

The door shall have a kiln dried hardwood frame and engineered door leaf, built up from layers of veneers bonded in a cross and long grain pattern and interspersed with insulating cork layers and 0.3mm aluminium sheets under the surface layers at either face.

Treatment

Window material shall be pre-treated with using an approved timber preservative in a controlled industrial environment to prolong its life and protect against fungal decay and insect attack.

Finish

The joinery shall be finished with 3 coats of factory applied water-based paint in an automated spraying plant.



Construction

The cill piece of the window shall be sloped and have a coated aluminum beading fitted to provide added weather protection. Mortice and tenon joints sealed with waterproof glue shall be used throughout. All sashes shall carry a weatherproofing seal which is colour coordinated with the paint coating. The width and depth of the grooves on the profile shall ensure strong and positive location of fittings.

Glazing

Glazing unit requirements:

- Glazing: Windows - Triple glazed
Doors - Double glazed
- Gas: Argon filled
- Coatings: Soft coat low emissivity glass
- Spacer Bar: Warm-edge spacer bar
- Toughened Glass: Toughened safety glass to comply with the Building Regulations
- BSI Kite Marking: Glazing unit BSI kite mark certified to BS EN 1279
Toughened glass BSI kite mark certified to BS EN 12600
- WCs/Bathrooms: Sandblasted glass. Sample to Project Architects approval

Window/Door Performance:

Window tested to BS 6375:1 & 2 with the following performance requirements:

- Air Permeability: 600 Pa
- Water tightness: 600 Pa
- Wind Resistance: 2000 Pa
- Whole unit U-value: Windows 1.1 W/m²k (or better)
Doors 1.4 W/m²k (or better)
- Certification: Third-party certification scheme - IAB, BBA or equal approved
- Security: Tested to PAS24:2016 and subject of Secured by Design licence
- Strength: BS6375 (doors)
- Glazing u-value (Ug): Centre pane not exceeding 0.76 W/m²K
- Frame U-value (Uf): Not exceeding 1.5W/m²K
- Exposure: Moisture content: 12% ±2% on delivery
- Window Hardware: Single handled system with an integral restrictor within the hinge of each opening sash restricting initial opening to less than 100mm. Restrictor manually disengaged to permit window to fully open to allow safe cleaning of glass.

Windows incorporating friction hinges shall be tested by the British Standards Institute for strength and operating characteristics and found to comply with the requirements of BS6375 Part 2.



Door Hardware:	Fitted with a multi-point locking system - this consists of a reversible latch bolt, two adjustable cams and a protector bolt operated by lever handles and a double profile cylinder deadlock. The protector bolt projects 20mm into the door frame.
Ventilator:	None
Front Door Letter box:	Yes
Door Thresholds:	Level entry, Part M compliant
Fixing:	From the inside. Windows/doors to be fixed by means of galvanized steel fitting straps fixed to the frame and attached to the masonry by means of proprietary fixings. Installation to be carried out using best building practices in conjunction with the manufacturer's recommendations.
Colour:	Internal & external RAL colours TBA by Project Architect
Warranty:	Frame 10 years, Glazing 10 years & Ironmongery 1 year

Airtightness

Seat the bottom of the frame on a bead of flexible airtight sealant. Foam seal any remaining gap between the sides & head of the door/window frame and structural ope. Prime surfaces as required and install a proprietary airtightness tape having an independently tested and certified service life of at least 50 years to provide a permanent to airtight seal at the wall/frame junction.

Execution

Carefully remove tenants blinds, curtains, curtain rails etc. and provide to tenant for them to protect and store until such time as they can be refitted.

Remove and dispose of all existing external doors & windows, frames, window boards, door saddles and internal reveals.

Supply and install new windows from the inside ensuring a maximum 10mm gap between the frame and the sides/top of the structural ope of the inner leaf of masonry.

Entrance steps at the front and back doors to be altered as necessary. Include for all builders works, formwork, etc.

Include for the installation of EPDM membrane to create a weather tight seal between windows and masonry. Ensure the membrane is appropriate to the substrate to which it is to be bonded.

Internally, make good any damage to walls and reveals. Supply and install airtight tapes/adhesives, new 25mm thick double bullnosed red deal window boards, hardwood door saddles (where required), and install insulated plasterboard (where External Wall Insulation is not included in scope of works) to reveals and head internally with a skim and painted finish. All timber to be varnished or painted to match existing. All painting and varnishing as per FCC Specifications.

Refit tenants blinds, curtain rails, etc.