

# Specification of Replacement Windows & Doors

# **WINDOWS & DOORS SPECIFICATION**

## **Replacement Windows**

### SCHEDULE

For Windows and doors to be replaced – see attached drawing

Tenders should allow for replacement in the following materials:

1. Hardwood
2. uPVC
3. Aluminium

Upon receipt of tenders, the client will make a decision of which material to approve

### SURVEY

Window Installation/surveying shall be carried out in accordance with the Trade Standards of the Code of Practice

All dimensions shall be taken including diagonals of all openings where windows etc. are to be replaced. All inspections and checks shall be made as necessary to ensure that each window is purpose made for the opening it is intended to fit.

### DESIGN

#### Type and style of windows and doors.

- The replacement windows and doors must match the existing colour and style of the windows and doors in the building.
- The outer surface of the frame of each new window and door must be in the same position in relation to the outside of the building as the original. This is to ensure they will fit in with the general appearance of the other windows in the building.
- The appearance of the sill must remain the same and it must not be adversely affected by the installation of the new window.
- The sill must be left in a condition to ensure it is fully protected from rainwater damage.
- The brick or stonework surrounding windows and doors must be left in a condition that will prevent the ingress of moisture. Its appearance must not be affected.

### STANDARDS

The window/door system shall be Kite marked in compliance with BS 7412:1991 and BS 7950 (formerly PAS 011), using materials Type A complying with BS 7413:1991, and the window fabricator/installer shall be a Licensed Kite marked manufacturer to BS 7412 and BS EN ISO.9002:1987/BS 5750: Part 2:1987. and a full copy of his licence shall accompany the Tender.

The windows and doors and the installation shall comply with all current

British Standards, Codes of Practice, Statutory Requirements and Building Regulations relevant to their performance.

The windows shall achieve a minimum U-Value of 1.3W/m

The installer shall be a F.E.N.S.A. member.

# **DOORS, WINDOWS AND GLAZING MATERIALS**

## **STANDARD**

Materials that comply with the design and the guidance below will be acceptable for doors, windows and glazing.

Materials for doors, windows and glazing should comply with all relevant standards, including those listed below

References to British Standards and Codes of Practice include those made under the Construction Products Directive (89/106/EEC) and, in particular, appropriate European Technical Specifications approved by a European Committee for Standardisation (CEN).

## **TIMBER DOORS AND WINDOWS**

**Timber and wood-based materials shall be of the quality and dimensions required by the design**

Items to be taken into account include:

### **classification and use**

Planted stops are not permitted on frames to external doors.

Storey-height frames should be of a section appropriate to their height and function. External doors should be not less than 42.5mm (44mm nominal) in thickness.

Wood windows should comply with the relevant requirements of BS 644 and have a minimum rebate depth of 15mm where double glazed units are to be installed.

Medium density fibreboard for window boards should be moisture resistant grade.

## **drying shrinkage**

To minimise drying shrinkage, the moisture content of joinery, when fixed, should not exceed the following:

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Joinery items	Moisture content (%)*
Windows and frames	17
Internal joinery in:	
- intermittent heating	15
- continuous heating	12
- in close proximity to a heat	9

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\* on delivery, the moisture content should be within 2% either side of the values specified.

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## **Workmanship**

All prefabricated items should be constructed to a good standard of workmanship, including:

- Fit and construction of joints
- Construction of finger joints
- Glueing and laminating construction of moving parts
- Surface finishes

Prefabricated components should comply with the relevant parts of BS 1186 : Part 2.

## **surface finish**

Any surface finishing defects should be such that they would not be apparent with a matt paint finish, whether the surface is to be stained or painted, gloss or matt.

## **Timber for doors and windows shall be of a naturally durable timber species or preservative treated and primed**

Items to be taken into account include:

## **Preservation**

Non-durable timbers used externally should be treated

Preservative treatment is required for the following:

- External door frames
- Windows
- Timber surrounds to metal windows
- External Doors

### **priming**

Material to be painted should be primed before fixing.

### **staining**

Material to be stained should have the first coat applied before delivery to site.

### **Glazing compounds and timber stains shall be compatible**

Compatibility of glazing, sealants and finishes should be checked with relevant manufacturers.

## **NON-TIMBER DOORS AND WINDOWS**

### **Doors and windows of materials other than timber shall be in accordance with appropriate standards**

Relevant standards include the following:

BS 4873 Specification for aluminium alloy windows

BS 7412 Plastics windows made from PVC-U extruded hollow profiles

BS 7413 White PVC-U extruded hollow profiles with heat welded corner joints for plastics windows: materials type A

BS 7414 White PVC-U extruded hollow profiles with heat welded corner joints for plastics windows: materials type B.

Third party certification is also required for PVC-U windows. Windows which are Kitemarked will meet with the Performance Standard.

## **IRONMONGERY**

### **Ironmongery shall be of the type and material required by the design**

Items to be taken into account include:

#### **relevant standards**

Ironmongery should be provided in accordance with the design and specification. For critical functions, materials should comply with appropriate standards, including the following:

BS EN 1935 Building hardware - single axis hinges - Requirements and test methods

BS 3621 Thief resistant lock assembly. Key egress

BS 8621 Thief resistant lock assembly. Keyless egress

BS 10621 Thief resistant dual mode lock assembly

BS 4951 Specification for builders' hardware: lock and latch furniture (doors)

BS 5872 Specification for locks and latches for doors in buildings

BS 6459 Door closers.

## **security**

Lock(s) should provide initial security by use of a latch operable with a key externally and a handle/thumb turn release internally. The full deadlocking facility should be engaged and be operable with a key externally and a handle/thumb turn release internally. Locks which comply with BS 8621, meet these requirements. External handles on multi-point locking systems should be twin or split spindle to avoid operating the latch.

Enhanced security can also be achieved by providing the facility to deadlock the internal/thumb turn when leaving the building un-occupied. Locks which comply with BS 10621, meet these requirements

Ironmongery for windows should be supplied as follows:

- hinges and fastenings of opening lights of windows should be of a type which prevents them from being opened from the outside when in the closed position
- opening lights on all ground floor windows and others which are readily accessible from the outside may be fitted with lockable devices which cannot be released without a key
- where the windows are required by Building Regulations to have background ventilation they may be fitted with trickle ventilators or some other means of providing ventilation which is controllable and located to avoid undue draughts. Windows with 'night vent' positions are not accepted as meeting these recommendations

## **door hinges**

Doors and windows should be designed and selected to avoid significant distortion, such as twisting and bowing during use. Timber shrinkage should be allowed for.

To reduce twisting, doors should be hung on hinges as follows:

Type of door	Hinges
External	1½ pairs x 100mm
Fire door	1½ pairs* x 100mm

\* 1 pair where rising butts are used

## **GLAZING**

**Glazing shall be as required by the design**

### **relevant standards**

Insulating glass units and glazing materials should comply with appropriate British Standards, including the following:

BS 5516 Code of Practice for patent glazing

BS 6262 Code of Practice for glazing of buildings

BS EN 1279 Glass in buildings - insulating glass units.

### **materials**

Glazing components should be compatible with the frame finishes.

Manufacturers' recommendations should be taken into account. Materials from different manufacturers should not be used together unless both have agreed in writing.

Linseed oil based putty should never be used for the installation of laminated glass or insulating glass units.

### **glass**

Glass used in insulating glass units for windows and doors should comply with appropriate British Standards including the following:

- Annealed glass - BS EN 572
- Laminated glass - BSEN14449
- Toughened glass - BS EN 12150
- Low-e coated glasses, including both hard and soft coated - BS EN 1096.

### **safety and security**

The glass supplier should provide documentation to confirm the properties of the various glasses used and conformance with the appropriate British Standards. Permanent marking of safety glass (including glazed shower/bath screens) is required.

Glazing materials should be compatible with the required levels of safety and security. The requirements for critical locations with a high risk of accidental breakage should comply with the safety requirements of Approved Document N in England