

***Walker Windows and
Doors NBS Specification
Full Specification***

Table of Contents

25-50-20/120 Doorset system 4

25-50-95/125 Window system 9

Specification

25-50-20/120 Doorset system

System outline

25-50-20 /120 Doorset system

- **Description:** Factory finished front and rear GRP doorsets to 'secured by design' standard
- **System performance:**
25-50-20/225 Weathertightness performance to BS 6375-1;
25-50-20/230 Resistance to wind load;
25-50-20/235 Air permeability;
and 25-50-20/260 Doorset security performance.
- **System manufacturer:** To be supplied by a Manufacturer holding 'Secured by Design' License

Door sets must have been tested and passed at a UKAS accredited test house to PAS 24:2016 Enhanced security performance requirements for doorsets and windows in the UK - doorsets and windows intended to offer a level of security suitable for dwellings and other buildings exposed to comparable risk.

Tenderers may use manufacturers that are listed on the Secure by Design web site:- <http://www.securedbydesign.com/companies/companies.aspx>
It is the Contractors' responsibility to verify Contractors' standing at the time of tender.

Constructors must use Manufacturers providing they can meet the requirements of the specification.

The contractor must indicate in the tender submission which manufacturer they intend partner for this contract.

- **Doorset:**
 - **Type:** **DOOR STYLES - REFER TO SEPARATE WINDOWS AND DOORS SCHEDULE DRAWINGS**

Composite Door Sets-GRP Door with UPVC frame & factory double glazed vision panels (UPVC door to rear door to living room)

All door sets must be tested to meet the requirements of PAS 24:2016. "Enhanced security performance requirements for door sets and windows in the UK". All door sets must be fit for purpose and comply with BS 6375 Parts 1-3:2009. "General performance requirements for door assemblies." (Formerly PAS 23).

Door Construction:

45mm thickness Nanya door blade or equal and approved, consisting of 2mm thick thermoset resin glass reinforced polymer (GRP) wood grain effect finish skins. Compression moulded SMC to door pattern both sides of the door. Bonded to composite construction engineered sub-frame and timber/PVC composite styles and rails. CFC free injected polyurethane foam insulating core filled between the void of the skins. Doors to have feature mouldings to both faces

Specification is for guidance only. An equal and approved Specification from an approved supplier from the list provided is acceptable.

Frame Construction:

PVC-U - To be either Profile 22 60/70mm PVC-U frame system or Eurocell 70mm section to BS7413.

Weatherstripping:

Schlegel Aquamac 21 or equal and approved

Threshold

Stormguard Proline AM3, Exitex weather bar to meet Part M Building regs or equal and approved. End caps to be included

Other requirements

Supply and fix 10mm hardwood threshold timber (as necessary) to existing concrete cill (to ensure clearance of door).

Ironmongery

To PAS 24:2016. -

LOCKING MECHANISM FOR ALL DOORS - 3 No. Specialist hinges (incorporating hinge bolts)

Multi-locking espagnolette system operated by key locking lever handles: 'Fullex' SL-16 Crimebeater Multi-bolt locking system, Winkhaus TruLock 20fp Lever Operated Multipoint. Locking 'Hoppe' Tokyo Gold Anodised lever handles which meets TS 007:2014 and BS EN 1670:2007 Grade 5. Solid spindle (SL97/ACO248), Cylinder to meet the requirements of BS1303:2005, Additionally the cylinder should meet the requirements of both BS 3621:2007 "Thief resistant lock assembly – Key egress" and PAS 24:2016 (anti manipulation). Cylinders for locks that meet this test will be stamped with a kite mark. Supply 3 sets keys

ADDITIONAL IRONMONGERY REQUIRED FOR ALL FRONT DOORS -

Letter plate to be fitted to meet TS008, DOCUMENT Q, PAS 24:2016, BS EN 1670 AND BS EN 13724:2002 ref. 'Paddock Fabrications' P209 Gold Anodized or 'UAP Frame Master' Ref. FMB1248G, Gold Anodized knocker c/w steel fixing bolts, 180d. eye viewer to meet TS002:2009, door security chain to meet TS003:2012, numerals, internal letter plate cover /security cowl,

GLAZING:

24/26mm obscure double glazed units if required by style. External pane to be 6.8mm 'Planitherm total + laminated, double-sided glazing tape/silicone bedded. Glazing beads to be fixed at 150mm centers and bedded in silicone. 90% Argon

Obscure toughened (Cotswold) inner pane (clear to living room door)

U-value (minimum) 1.2W/msq.K

WARRANTIES:

minimum

- Glazing System Failure - 10 years
- Manufacturing Defects - 10 years
- Door leaf warranty - 10 years
- Ironmongery - 10 years
- Factory Coatings - 10 years

45mm Nanya GRP door-blade Doors have feature mouldings to both faces

- **Fasteners:** Submit proposals.
Door/Window frame installation screws, suitable for concrete, solid brick, perforated brick, hollow block etc. Zinc plated and yellow passivated for increased corrosion resistance
- **Hardware:** Only where identified and agreed with YHN Rep. for GAS REGULATIONS purposes:
Door Frames to be packed at head as necessary to accommodate a 'Titon' Gas Regulations Ventilator Ref.7500 GR or similar to suit Gas Regulations (All by Door Supplier)
- **Filler between frame and reveal:** 45-55-75/370 Foam fillers.
- **Trim:** 45-75-30/340 PVC-U finishing trims.
- **Samples required:** 25-50-20/305 Product samples.
- **Execution:** 25-50-20/647 Installing PVC-U doorsets;
25-50-20/655 Fixing hardware generally;
25-50-20/680 Frame sealant joints;
25-50-20/685 Timing of fixing of doorsets;
25-50-20/695 Protection of components;
and .
- **System completion:** 25-50-20/810 Documentation relating to doors, door assemblies and doorsets.

System performance

25-50-20 /225 Weathertightness performance to BS 6375-1

- **Standard:** BS 6375-1
- **UK exposure category:** 1200 Pa.
- **Door performance:** Fulfil classification parameters given in BS 6375-1 for weathertightness relating to specified UK exposure category.

25-50-20 /230 Resistance to wind load

- **Resistance to wind load:** Contractor's choice.

25-50-20 /235 Air permeability

- **Air permeability:** Contractor's choice.

25-50-20 /260 Doorset security performance

- **Intruder resistance:** To PAS 24.

Products

25-50-20 /302 Frame Sealant Joints

- **Manufacturer:** Adshead Ratcliffe & Co Ltd
- **Product:** Arbosil 1096 Sealant
- **Colour:** White

25-50-20 /305 Product samples

- **Manufacturer:** Contractor's choice.
- **Submittals:** Doorset.
- **Purpose:** For use as a reference sample.
- **Labelling:** Clearly label all submitted samples.
- **Timing:** Before ordering for Project

45-55-75 /370 Foam fillers

Shared by: 25-50-20/120 Doorset system; and 25-50-95/125 Window system.

- **Manufacturer:** Adshead Ratcliffe & Co Ltd
- **Product reference:** Arbofoam
- **Execution:** 45-55-75/620 Joint preparation for sealant application.

45-75-30 /340 PVC-U finishing trims

- **Manufacturer:** Contractor's choice.
- **Profiles:** Contractor's choice.
- **Colour and finish:** Contractor's choice.

Execution

25-50-20 /610 Preconstruction survey

- **Procedure:** Before starting work on designated items, take the site dimensions, record them on shop drawings and use them to ensure accurate fabrication.
- **Primary support structure:** Survey sufficiently to verify that the required accuracy and security of erection can be achieved.
- **Timing:** Before fabrication.

25-50-20 /647 Installing PVC-U doorsets

- **Standard:** In accordance with BPF 356/2 Code of practice for the installation of PVC-u windows and doorsets in new domestic dwellings.

- **Fixings and fasteners:** Door/Window frame installation screws, suitable for concrete, solid brick, perforated brick, hollow block etc. Zinc plated and yellow passivated for increased corrosion resistance

25-50-20 /655 Fixing hardware generally

- **Holes for components:** No larger than required for satisfactory fit and operation.
- **Adjacent surfaces:** Do not damage.

25-50-20 /680 Frame sealant joints

- **Application:** Prepare joints. Form triangular fillets finished to a flat or slightly convex profile. 25-50-20/302 Frame Sealant Joints

25-50-20 /685 Timing of fixing of doorsets

- **Timing:** After rooms served have been made weathertight and the work of wet trades locally is finished and dried out.

25-50-20 /695 Protection of components

- **General:** Do not deliver to site components that cannot be installed immediately or placed in clean, dry, floored and covered storage.
- **Stored components:** Stack on level bearers, separate with spacers to prevent damage by and to projecting hardware, beads, etc.

45-55-75 /620 Joint preparation for sealant application

- **Surfaces to which sealant must adhere:** Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
- **Cleaning:** Use materials and methods recommended by sealant manufacturer.
- **Vulnerable surfaces adjacent to joints:** Mask.

System completion

25-50-20 /810 Documentation relating to doors, door assemblies and doorsets

- **Submittals:**
 - **Manufacturer's operation and maintenance instructions for the following products:** Doors

Ω End of system

25-50-95/125 Window system

System outline

25-50-95 /125 Window system

- **Description:** Factory Manufactured and Assembled UPVC Windows: Casement
- **Standard System Window BFRC energy rating:**
- **Band (minimum):** A
- **Value (maximum):** Entire window to be u value min 1.2W/msq.K
- **System performance:** 25-50-95/205 Design submittals;
25-50-95/212 Weathertightness by test standard;
25-50-95/215 Resistance to wind load;
25-50-95/216 Air permeability;
25-50-95/222 Window energy rating (WER);
25-50-95/250 Emergency egress;
25-50-95/275 Safety in use;
25-50-95/265 Security performance;
and 25-50-95/260 Protection from falls.
- **System manufacturer:**
PVC-U Windows, doors and glass units are to be supplied by a Company with ISO 14001 Environmental Management System accreditation. Eurocell Eurologik window system or other equal and approved. Profiles to have minimum of 6 chambers in the sash and 5 chambers in the outerframe. Profiles and Thermal reinforcing to be lead free. Contractor to state system in tender return and confirm chambers.
- **Window unit:**
 - **Material:** 45-25-99/330 PVC-U window units.
 - **Fixings:** Door/Window frame installation screws, suitable for concrete, solid brick, perforated brick, hollow block etc. Zinc plated and yellow passivated for increased corrosion resistance.
Reinforcing: Frames to be reinforced with FP Thermlock reinforcing to give an increased thermal performance and better screw retention for hardware fixings.
- **Filler:** 45-55-75/370 Foam fillers.
- **Sealant:** 45-55-75/345 Silicone construction joint sealants.
- **Samples required:** 25-50-95/305 Product samples.
- **Execution:** 25-50-95/655 Window installation generally;
25-50-95/670 Fixing of composite frames;
25-50-95/675 Fixing of PVC-U frames;
25-50-95/700 Frame sealant joints;
25-50-95/705 Fixing window hardware;
and .
- **System completion:** 25-50-95/810 Documentation relating to windows systems.

System performance

25-50-95 /205 Design submittals

- **Provision of information:** In accordance with BS 6262-7.
- **Detailed design:**
 - **Requirement:** Submit proposals on award of Contract only. Window types provided are provided for tendering purposes. Existing house types proposed styles must be designed, submitted and agreed with YHN Rep prior to manufacture
 - **Purpose:** Submit proposals to be agreed in advance with Client
 - **Submittals:** Typical elevation and section drawings at suitable scales.
 - **Timing:** In advance of manufacture
 - **Format:** Drawing in AutoCad format or similar and approved
- **Validation submittals:** Approved installer validation.

25-50-95 /212 Weathertightness by test standard

- **Air permeability:** To BS 6375-1, Class 2.
- **Watertightness:** To BS 6375-1, Class 7A.
- **Resistance to wind load:** To BS 6375-1, Class A2.

25-50-95 /215 Resistance to wind load

- **Resistance to wind load:** To BS EN 12210, Class 0.

25-50-95 /216 Air permeability

- **Air permeability:** Contractor's choice.

25-50-95 /222 Window energy rating (WER)

- **Standard:**
 - **Calculation:** In accordance with GGF Guidance Note 'BFRC rating calculations'.
 - **Verification:** BFRC approved Independent Agency.
- **Window energy rating:**
 - **Band (minimum):** A
 - **U-Value (maximum):** Entire window to be u value min 1.2W/msq.K
 - **G-Value (minimum):** 0.44

25-50-95 /250 Emergency egress

- **Occupancy:** Family
- **Risk assessment:** Required to establish appropriate emergency egress measures and implications. To be cross referenced with fire prevention, accessibility, security and prevention of falls measures. Submit for agreement.
- **Emergency egress windows:**
 - **Opening area:** Minimum unobstructed openable area 0.33 m², minimum 450 mm high and 450 mm wide. Opening area to be maintained without being held open during escape.
 - **Maximum height above floor level:** 1100 mm to bottom of openable area. Guard as necessary to prevent falls, as required by building regulations.
 - **Locks and child restraint stays:** Permitted where fitted with child resistant release catch. Submit proposals.

25-50-95 /260 Protection from falls

- **Occupancy:** Family
- **Risk assessment:** Required to establish appropriate measures and implications. To be cross referenced with fire prevention, inclusive design and egress measures. Submit for agreement.

25-50-95 /265 Security performance

- **Security performance:** To PAS 24 and To Secured by Design standards.

25-50-95 /275 Safety in use

- **Standard:** In accordance with BS 8213-1.
- **Risk assessment:** Highlight any conflicts with fire prevention, inclusive design and egress measures. Submit for agreement.

Products

25-50-95 /305 Product samples

- **Manufacturer:** Submit proposals.
- **Submittals:** Complete window.
- **Purpose:** For use as a reference sample.
- **Labelling:** Clearly label all submitted samples.
- **Timing:** Prior to ordering for project

45-25-99 /330 PVC-U window units

- **Manufacturer:** Eurocell Limited or other equal and approved.
- **Product reference:** 70 mm Casement Windows
- **Type:** Submit proposals.
- **Colour/ Finish:**
 - **External:** Anthracite Grey
 - **Internal:** White

- **Glazing:**
 - **Type:** 28mm mm insulating unit, glazed internally.
- **Ironmongery:** All hinges to **casement windows** to be Securistyle Defender range.
The "Defender Egress" to all 1st floor and above windows to open to a full 90° for emergency exit to comply with BS 9991:2015 and Building Regulations Approved Document B for fire escape and allow cleaning access from inside the building to comply with BS8213: Part 1: 2004. A separate intuitive to release rebated Securistyle hook and peg child restrictor is also fitted and tested to BS6375 Part 2 to withstand a force of 600N when opened to the restricted position.
The "Defender Standard" to all ground floor windows.
All hinges used meet: Grade 4 BS EN 1670 minimum 180hrs corrosion resistance

Trickle Ventilation:

'Titon' trickle ventilators or equal and approved to be fitted as standard to meet statutory requirements. Approved Document F

Permanent Gas Ventilators:

Where appropriate, to conform to Building Regulations Approved Document J and CORGI essential Gas Safety - Third Edition 2002

- **Third party accreditation:** Windows to be manufactured by a firm currently registered under a quality assurance scheme operated by a certification and inspection body accredited by the United Kingdom Accreditation Service (UKAS) or equal approved. Installation to be in accordance with the British Plastics Federation Code of Practice for installation of PVC-u windows 357/1 (Existing dwellings) as far as practicable.
To be supplied by Manufacturer holding 'Secured by Design' License all in accordance with PAS 24:2012 to Ground Floor and vulnerable windows.
Installation to be by Company registered with F.E.N.S.A. Operation and strength characteristics: To BS 6375-2: 2009.
Windows and Double glazed units are to be both supplied by an approved manufacturer with ISO 14001 Environmental Management System accreditation.
- **Standards:** BS 7412:2007 Specification for windows and doorsets made from unplasticized polyvinyl chloride (PVC-U) extruded hollow profiles
- **Configuration:** As per drawing
- **Dimensions:**
- **Glazing or infill:**
 - **Standard:** Relevant parts of BS EN 1279.
 - **Requirements:** Manufacturer's standard.
 - **Composition:** Insulating Glazing: Pre-fixed to GROUND FLOOR/Vulnerable windows
Pane Material: 28mm insulating double glazed unit
90% Argon
Inner Pane: 4mm clear 'Planiclear annealed' glass
Outer pane: 6.8mm 'Planiclear' clear laminated glass
 - **Ground Floor Variation:** Insulating Glazing: Pre-fixed to GROUND FLOOR Bathroom / W.C windows

- Pane Material: 28mm insulating double glazed unit
90% Argon
Inner Pane: 4mm Cotswold obscure float glass
Outer pane: 6.8mm 'Planiclear' clear Laminated glass
- **Alternative:** Insulating Glazing: To lower / side panels of window/door combination frames
Pane Material: 28mm insulating double glazed unit 90% Argon
Inner Pane: 4mm toughened safety 'Planiclear' glass
Outer pane: 6.8mm 'Planiclear' clear laminated glass
 - **Panels:** Insulated panels to be composite PVCu skin, both sides bonded to 9mm moisture resistant MDF and EHDN polystyrene or BS (British Steel) Plastisol steel faced (leatherette finish) – white/white as standard.

- **Execution:** 45-25-99/625 Replacement window installation.

45-55-75 /345 Silicone construction joint sealants

- **Manufacturer:** Adshead Ratcliffe & Co Ltd
- **Product reference:** Arbosil 1096 Sealant
- **Colour:** Grey.
- **Accessories:** None.
- **Execution:**

45-55-75 /370 Foam fillers

Shared by: 25-50-20/120 Doorset system; and 25-50-95/125 Window system.

- **Manufacturer:** Adshead Ratcliffe & Co Ltd
- **Product reference:** Arbofoam
- **Execution:** 45-55-75/620 Joint preparation for sealant application.

Execution

25-50-95 /655 Window installation generally

- **Installation:** Into prepared openings.
- **Standard:**
 - **Generally:** In accordance with BS 8213-4 :2016 Windows and doors. Code of practice for the survey and installation of windows and external doorsets and In accordance with GGF publication Glazing Manual Data Sheet 6.2. Surveys and installation to be carried out by a company accredited to BS Kitemark BPF W362/1 (KM94972) Survey and installation of Replacement Plastic Windows and Doors or similar accredited scheme approved by YHN Contract Administrator.
 - **Aluminium windows:**
 - **Plastics windows:** In accordance with British Plastics Federation publication Code of practice for the installation of PVC-u windows and doorsets in new domestic dwellings.
 - **Steel windows:**
 - **Wood windows:**
- **Gap between frame edge and surrounding construction:**
 - **Minimum:** 3mm
 - **Maximum:** 10mm
- **Filler:** Between window unit and reveal.
- **Distortion:** Install windows without twist or diagonal racking.

25-50-95 /670 Fixing of composite frames

- **Fasteners spacings:** When not predrilled or specified otherwise, position fasteners not more than 150 mm from ends of each jamb, adjacent to each hanging point of opening lights, and at maximum 600 mm centres.

25-50-95 /675 Fixing of PVC-U frames

- **Fasteners spacings:** When not predrilled or specified otherwise, position fasteners 150–250 mm from ends of each jamb, adjacent to each hanging point of opening lights, but no closer than 150 mm to a transom or mullion centre line, and at maximum 600 mm centres.

25-50-95 /700 Frame sealant joints

- **Siting:** Contractor's choice.
- **Application:** Finish triangular fillets to a flat or slightly convex profile.

25-50-95 /705 Fixing window hardware

- **Fixing:** Assemble and fix carefully and accurately using recommended fasteners and methods. Do not damage hardware and adjacent surfaces.

45-25-99 /625 Replacement window installation

- **Standard:** To BS 8213-4.

45-55-75 /620 Joint preparation for sealant application

- **Surfaces to which sealant must adhere:** Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
- **Cleaning:** Use materials and methods recommended by sealant manufacturer.
- **Vulnerable surfaces adjacent to joints:** Mask.

System completion

25-50-95 /810 Documentation relating to windows systems

- **Performance evidence:**
 - **Generally:** Test evidence must be in the name of the window unit or system manufacturer, or approved installer.
 - **Weathertightness:** Provide third party certification of system conformity for specified weathertightness performance for each applicable window system installation.
- **Submittals:**
 - **Manufacturer's operation and maintenance instructions for the following products:** Method of operation and control.
Cleaning and maintenance requirements.

Ω End of system