

Survey Guidelines

1. GUIDANCE

1.1 GUARANTEE AND MAINTENANCE

Failure to install a composite door product in accordance with published guidelines may result in reduced levels of performance and may invalidate any applicable product guarantee.

Failure to carry out regular and routine service and maintenance may also result in reduced levels of performance and may invalidate any applicable product guarantee.

1.2 SPECIFICATION

Survey and installation guidelines are based on the most typical type of composite doorset specification supplied. Further guidance on specialist products may be obtained by referring to the supplier.

1.3 FURTHER GUIDANCE

For further guidance relating to the principles of replacement doorset installation, including:

- variations in aperture types.
- use of sealants.
- use of polyurethane foam.
- PVC-UE trims.
- plastics doorset removal techniques.

Refer to BS 8213-4:2016 Code of Practice for the Installation of Windows and External Doorsets.

For fire doorsets, also refer to BS 8214:2008 Code of Practice for Fire Door Assemblies and/or the ASDMA (Architectural and Specialist Door Manufacturers Association) Best Practice Guide to Timber Fire Doors.

1.4 REPAIRS

Repairs to damage which may be caused during installation may require specialist tools and equipment subject to the level of damage; further information may be obtained by referring to the supplier.

1.5 PRECAUTIONS

1.5.1 Doorset removal and installation

Doorset removal and installation can be dangerous. Health and Safety precautions should be observed at all

times. Operatives should be formally trained in the safe use of all tools, and installation companies should take all possible precautions to ensure that operatives have the correct equipment.

1.5.2 Care of the product

When using cleaning and lubricating products always follow the manufacturer's instructions; take care not to use an excessive quantity. For cleaning products, test a small area of the product in an obscure location first.

NOTE: Do not use solvent-based or abrasive cleaning products or products containing bleaching agents.

2. SURVEYING POINTS

2.1 REPLACEMENT DOORSETS

The surveyor is responsible for:

- Specifying installation techniques.
- Measuring the aperture.
- Preparing a schedule for any ancillary items, including additional hardware requirements, which may not be included for in the standard specification.

Surveyors shall be fully trained in doorset installation techniques.

2.2 SUITABILITY OF THE APERTURE

The surveyor shall check for any apparent defects and deficiencies around the structural opening. Agreement should be reached as to who is responsible for rectifying any defects prior to doorsets being installed.

NOTE: It may be advisable to remove one doorset to check the condition of the existing DPC (Damp proof course), in so far as this is possible. If the existing DPC will need to be disturbed or otherwise modified, the surveyor shall indicate the method and materials required to reinstate the DPC.

2.3 EXISTING LOAD-BEARING DOORSETS

Check to ensure that there is a lintel or other suitable load-transferring structure above the doorset. PVC-U framed composite doorsets are not designed to carry dead loads. If in doubt, raise the matter with the client.

2.4 REGULATIONS

The installation must comply with any relevant regulations. The principal regulations that may apply are The Building Regulations (England & Wales) B, E, F, L, M and N, or the equivalent regulations in Scotland and Northern Ireland.

2.4.1 Listed buildings and conservation areas

The existence of any restrictions limiting the installation of replacement products should be checked.

2.4.2 Building Regulations

The surveyor should check whether the installation will be subject to Building Regulations and/or planning approval procedure.

2.5 OUTWARD OPENING DOORSETS

Check the correct mode of opening (inward or outward). On outward opening doorsets a restrictor, such as an overhead restrictor, may be required as the door leaf may be subject to sudden movement by wind gusting.

2.6 CILL AND THRESHOLD

The requirement for a cill of the appropriate size and the threshold type to be used shall be checked, with attention paid to the internal floor level and the need for the door to swing clear of internal floor-coverings.

2.7 FIRE DOORSETS

All fire resisting doorsets must be fitted with a self-closing device capable of overcoming the latch.

3. SURVEYING FOR 'NEW BUILD'

3.1 GENERAL

The specifier, client or house builder will normally provide manufacture sizes, styles of doors required and the handing and opening (open in or out) for the doors. However, there are times when a site visit is required to establish the manufacture sizes.

In general terms, the requirements for products used in 'New Build' situations are similar to those requirements referred to in this guide as 'replacement doors'.

Specifically:

- The product shall be fitted correctly – square, plumb and without twist.
- A suitable perimeter clearance is allowed for manufacturing tolerances of the building aperture and the doorset.

3.1.1 Prepared Openings

Doorsets shall be fitted into prepared structural openings as late as possible in the construction programme, to avoid potential damage.

It is normal practice in 'New Build' to form the structural opening around a suitably sized template, which is removed and replaced by the door. It is essential that both systems ensure adequate fitting space for the door.

On completion of the installation, all products shall be checked for ease of operation, correct function and cleanliness as for replacement products.

NOTE: Care shall be taken in specifying manufacturing sizes where proprietary cavity closers are used, as these products can reduce the effective opening sizes.

NOTE: It may be appropriate to re-check the finished structural opening sizes after removal of the sub-frame template prior to manufacture.

3.1.2 Proprietary sub-frame systems

There are several proprietary plastics systems on the market which include a built-in sub-frame suitable for 'bricking up to'. These provide a pre-formed sub-frame, of suitable size and material, which will enable subsequent insertion of the door.

It is the responsibility of the specifier, client or house builder to reassure themselves that the particular proprietary system chosen will permit the doorset to function correctly, function as a cavity closer - if required, and permit adequate expansion and contraction of the doorset.

4. TAKING MEASUREMENTS FOR REFURBISHMENT PURPOSES

4.1 MEASURING

4.1.1 Width measurement

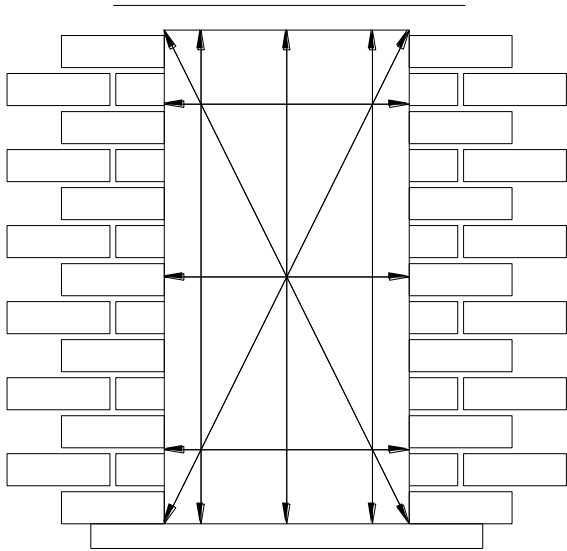
The width of the aperture shall be measured at three points - the top, middle, and bottom of the opening. The smallest of these is used to determine the aperture width for the external sizes and internal measurements will need to be taken regarding widths and heights to establish the plaster line and cill differences (if any). (See Fig 1. below)

4.1.2 Height measurement

The height of the aperture shall be measured at three points - the left, middle, and right of the opening. The

smallest of these is used to determine the aperture height. (See Fig 1 below)

Fig 1.



4.1.3 Diagonal measurement

The squareness of the aperture shall be checked by measuring the diagonals of the aperture. If the diagonals are more than 10mm different, then the client shall be informed, and a solution agreed (See Fig 1. above).

NOTE: Irregular openings may require packing pieces and/or external trims.

4.1.4 Front to Back Dimension

Check that the installation of the new frame will not cause problems with the DPC or cavity closing.

4.2 WALLS AND APERTURES

The aperture shall be checked to ensure that it is plumb and level.

4.3 REVEAL SIZES

The difference between the internal and external reveal sizes shall be checked to ensure that the opening of the door or any door fitting will not be impeded by plaster, render, skirting boards, tiles and existing floor covering/ heights.

4.4 MANUFACTURING SIZES

A negligible amount of expansion and contraction is to be expected due to temperature fluctuations, and although this is not as great as with other materials it must be taken into consideration.

Allowances are also to be made with regard to the doorset and building aperture tolerances.

Table 1 (below) provides the deductions that are recommended for non-fire resisting doorsets in plastics outerframes.

Table 2 (below) provides deductions for fire resisting doorsets in plastics outerframes, which differ for the width and height.

Table 1. Deduction distances

Length	Up to 1.5m	1.5 – 3.0m	3.0 – 4.5m	Over 4.5m
Width Deduction	10mm	10mm	15mm	20mm
Height Deduction	5mm	5mm	5mm	5mm

Table 2. Deduction distances for fire doorsets

Width	Up to 1.1m
Deduction	10mm
Height	Up to 2.3m
Deduction	5mm (total)

NOTE: These deductions are from the total width or height, and are not 'per side'. With normal installations, all the height deduction will be at the head of the door.

NOTE: When calculating height deductions, due allowance should be made for any silicone or mortar bed at the sill.

5. SURVEY CHECKS

5.1 FINAL SURVEY CHECKS

The following items shall also be checked to ensure that none of these will adversely affect the installation:

- The proposed replacement shall be checked to ensure that neither the security of the property, nor the resident's safety in case of fire is decreased.
- The hinge clearance shall be checked.

- The access to the site shall be checked to ensure adequate access for the installers and the replacement products.
- Check with the client that the configuration and handing of doorsets are correct.

5.2 SURVEYING CHECKLIST

It is advisable that a checklist is used to ensure that all aspects of surveying are completed.

An example is provided in Table 3 (below).

Table 3. Surveying checklist

AREA TO BE CHECKED	OK? YES/NO
Aperture	
1. Aperture and DPC in suitable condition for the installation?	
2. Any evidence of damp or existing cracks?	
3. Doorsets not load-bearing?	
4. Any Services in the aperture/existing frame?	
Measurement	
1. Aperture diagonals within 10mm of each other?	
2. Do the 3 Width measurements agree within 5mm? If not what action is proposed?	
3. Do the 3 Height measurements agree within 5mm? If not what action is proposed?	
4. Length and type of cill checked?	
Regulations	
1. Is a fire rated door required?	
2. Is there a requirement for disabled access?	
3. Is a gas vent required to be fitted?	
4. Is the building 'listed', or in a conservation area?	
5. Is the replacement likely to be subject to planning permission, or Building Regulation approval?	

Function	OK? YES/NO
1. Reveal sizes checked to ensure proposed Doorset will function?	
2. Are doorset sizes within available range?	
3. Will leaded/georgian glass line through?	
4. Are all the extras specified on the order correct?	
Fixing method	
1. Can fixings be obtained at the correct spacing?	
2. How will the heads be fixed?	
Doorset	
1. Is the mode of opening correct?	
2. Threshold and cill size OK?	
3. Is all extra hardware correct and practicable?	