

GLAZING SYSTEMS FOR DRAINED & VENTILATED FRAMES

THE D4 DRAINED SECURITY GLAZING SYSTEM

DESCRIPTION

The D4 Drained Security Glazing System has been developed in response to growing requests by housebuilders and specifiers for a glazing system which can offer a high level of security and excellent resistance to air permeability and water penetration.

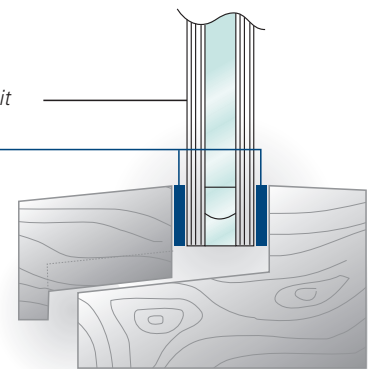
Drawing upon its experience as one of Europe's largest manufacturers of strip sealants, Hodgson has developed Flexibond, a revolutionary advance in glazing technology. Manufactured to exacting standards, Flexibond provides superior strength together with outstanding adhesion and load bearing characteristics making it the ideal choice for installing all types of single glass and double glazed units into drained and ventilated timber frames with external beads. For internal beads contact Technical Services.



This diagram illustrates external beads only

Double Glazed Unit

Flexibond



Note: Silfix® U9 may also be required to comply with BS8000: Part 7 Clause 2.2.1(e) sealing of frame section junctions and fabrication holes, prior to glazing.

EXPOSURE/WEATHERTIGHTNESS RATING

- Tested to BS 6375: Part 1: 1989 and achieved a Weathertightness classification of 2400 Pa (Special)
- Air Permeability 600 Pa. Watertightness 750 Pa

SECURITY RATING

Successfully tested to BS 7950:1997 Specification for Enhanced Security Performance of Casement and Tilt/Turn Windows for Domestic Applications (Annex A5 Glazing Removal Test).

INDUSTRY STANDARDS COMPLIANCE

- BS 6262 Reference 9.3.3.7
- BS 8000 Reference 3.4.1.2
- GGF Manual Section 4.2 Reference IG2
- Zurich New Build Guarantee Ref 2.56
- HAPM CLM
- NHBC Chapter 6.7 Clauses D7 and D4
- Secured By Design

FRAME COATING SYSTEM SUITABILITY

Can be overcoated immediately with water or solvent borne paint and wood stain which will adhere well.

MAINTENANCE

Regular maintenance of the frame is essential to ensure maximum performance of the glazing system and double glazed unit.

WHY CHOOSE THE D4 DRAINED GLAZING SYSTEM

- Superior resistance to unauthorised entry.
- Provides a neat and professional finish at the sightline after trimming
- It provides excellent durability and movement accommodation
- More suitable for site glazing than systems using closed cell foam (dry) glazing tapes
- Suitable for glazing all glass types either on site or in the factory

SPECIFICATION CLAUSE

Hodgson D4 Drained Security Glazing System Glazed In Accordance With The Method Statement For The D4 Glazing System.

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GLAZING SYSTEM D4 METHOD STATEMENT

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MATERIALS REQUIRED

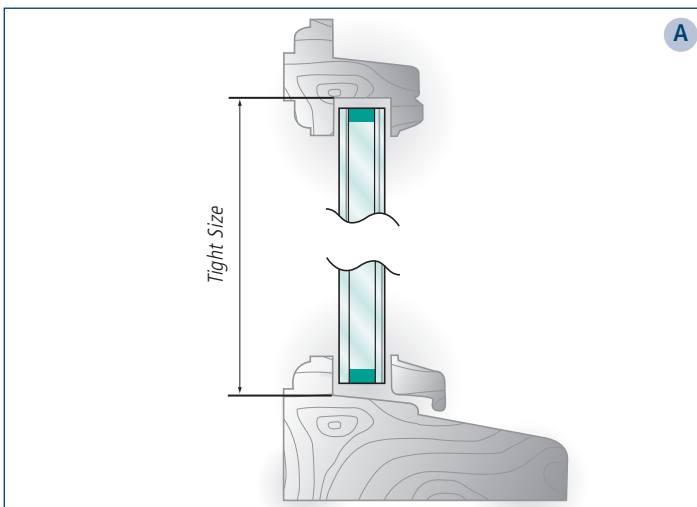
- Flexibond
- Silfix® U9 silicone sealant
- Setting blocks to suit the rebate design, unit thickness and edge clearance
- Location blocks sized to suit the unit thickness and edge clearance
- Bead blocks if required - check window rebate design
- Sheradised glazing pins: 25mm, 30mm & 38mm

USEFUL TOOLS & ACCESSORIES

- Hand held moisture meter
- Flexibond trimming knife
- Glass cleaner
- Glazing shovel
- Curved trimming blades

MEASURING THE FRAME OPENING

Any moisture that permeates to the rebates in a drained frame must be rapidly removed. It is important therefore that the double glazed unit is positioned to facilitate drainage in the bottom rebate and maximise ventilation around all rebates. Ensure that the required unit size is calculated after each opening has been correctly measured (see picture A), and the required edge clearances have been determined.



CALCULATING THE UNIT SIZE

The spacer bar of the unit should ideally be at or slightly below the sightline. The minimum edge clearance for the bottom rebate is 5mm and for the sides and top the minimum is 3mm. Consult the window frame manufacturer if in doubt.

Example: For frames designed to give 5mm edge clearance on all 4 sides (18mm rebate upstands on all 4 sides) the required glass size will be - tight rebate size minus 10mm.

PREPARATION

1. Check that the moisture content of the window does not exceed 17% as per NHBC Chapter 6.7.

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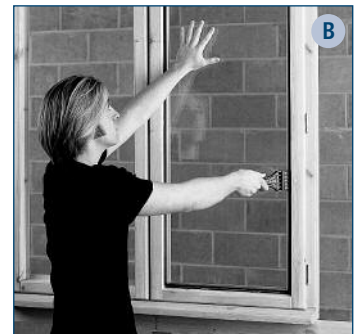
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2. Remove all beads from the window and pencil mark the bottom bead on the outside at 150mm centres and no more than 50mm from each end. Make a corresponding mark on the rebate platform. These pencil marks will show you where to position the bead blocks (if required) and pins when pinning the bead.
3. Remove all dust, grease and loose material from the rebate. Any moisture on the timber should be wiped off using a clean paper towel or other absorbent material to give a dry surface.
4. Check the condition of any primer or stain on the frame, especially the rebate and glazing surfaces of the beads. Any section which has been partially missed or is considerably weathered should be reprimed or stained before glazing.

5. Check that the unit fits into the frame and can be centralised when standing the unit on setting blocks so that there is a minimum 5mm edge clearance at the bottom of the unit. The spacer bar should ideally be level with the sightline or slightly below it (see picture B).



6. Apply Silfix® U9 to the bottom half of all joints in the rebate upstand and all rebate platform to platform joints to seal any gaps which are present or may open up (see picture C).



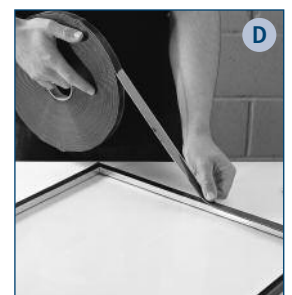
PREPARATION OF THE DOUBLE GLAZED UNIT

1. Inspect the double glazed unit for obvious defects and wipe any dust or loose material off the unit. Cut away excess edge sealant from the face of the glass.

APPLICATION OF FLEXIBOND TO THE DOUBLE GLAZED UNIT

With the unit laid horizontally on a non-scratch surface, apply Flexibond around the perimeter face of the unit as follows:-

1. Starting at one corner, apply Flexibond to the face of the unit with the bottom edge of the backing film aligned with the unit edge (see picture D). Cut the end of Flexibond and the backing film flush with the end of the unit using a sharp blade. Fold back approximately 5cm of the backing film from each end to expose the strip sealant.



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2. Begin the application of the second length of Flexibond by forming a butt joint against one of the exposed sections of Flexibond already applied. Do not overlap the strip or leave gaps between adjacent sections of strip and do not make indentations at the joint. Continue by aligning the backing paper with the edge of the unit and cut the Flexibond and backing paper as before (see picture E).

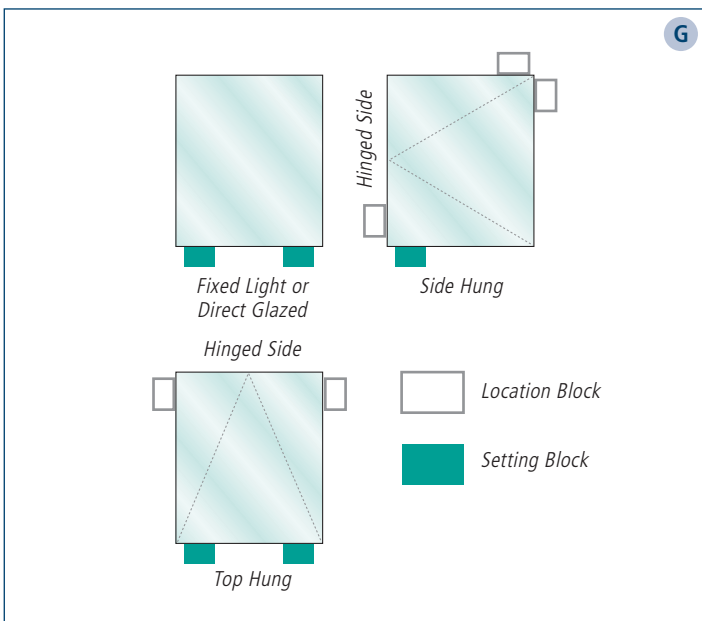


3. Continue to apply Flexibond along the perimeter of the unit as described above until you reach the final joint. When the fourth length reaches the exposed section of the first length, fold the strip back on itself and cut through the backing paper and strip at the crease so as to form a neat joint (see picture F).



- 4. Replace the backing paper onto the strip at the four corners. Carefully turn the unit over and apply strip to the face of the unit following the same method used for the first side.
- 5. If the units are to be transported to site or stored prior to installation, they should be stacked at a slight incline from the vertical with suitable pads to prevent the strip from being squashed or otherwise deformed.

GLAZING OF FRAMES



1. All double glazed units must be positioned on setting blocks. If the window has an opening sash, each unit will need to have its weight supported by location blocks in addition to the setting blocks. The position of setting and location blocks depends on the way the sash is hung. Check picture G below to select the correct position of setting and location blocks appropriate for the window to be glazed.

- 2. Position the setting block(s) on the bottom rail as near to the quarter points as possible as shown in picture G. Where more than one unit per window is to be glazed, start by glazing the bottom unit(s).
- 3. Carefully remove the film from the strip sealant on one side of the unit only. Examine the strip on the pre-taped units and replace with fresh material if damaged.

- 4. Position the bottom of the unit on the setting block(s). Using a glazing shovel inserted at the side of the unit to control and guide the unit, ease it back a little so that the unit is centralised in the frame before the Flexibond makes contact with the rebate upstand (see picture H). Guide the unit back until the strip sealant touches the rebate upstand on all sides.



- 5. Press firmly all the way round the edge of the double glazed unit to ensure that the Flexibond is compressed between the unit and rebate upstand (see picture I).
- 6. If glazing an opening sash, insert location blocks around the unit as shown in Picture G.



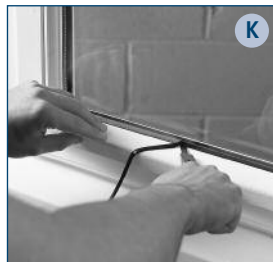
- 7. Remove the backing paper from the strip facing you.
- 8. Align the bead blocks (if required) with the front edge of the bottom rebate platform no more than 50mm from either end and not more than 150mm apart (where the pencil marks should already be). A minimum of 2 blocks must be used for the bottom bead.
- 9. Take the bottom bead and place onto the bead blocks (if required) or rebate platform. Apply as much pressure as is safely possible to the bead so that the Flexibond is compressed between the bead and unit. Position the pins at right angles to the top surface of the bead where the pencil marks are found.

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They should be no more than 50mm from either end and not more than 50mm apart (see picture J). It is advisable to use shorter glazing pins when pinning beads to the midrails found on some horizontal and all bar window styles.



10. Apply pressure on the bead to ensure good contact with the Flexibond and pin the bead. There should always be at least two pins for every bead.
11. Fix the side and top beads in the appropriate order by positioning them onto the rebate platform and apply pressure to ensure full contact with the Flexibond. Pin as described above. Bead blocks are not required for the side and top beads.
12. Using a trimming knife with a curved blade, trim off the excess strip sealant above the sightline at a slight angle so that water will be shed away from the glass (see picture K).



FRAME DECORATION & MAINTENANCE

The frame and sealant may now be painted with water/solvent borne paint or woodstain. Regular maintenance of the frame is essential to ensure maximum performance of the glazing system and double glazed unit.