



All you need to know about Glazing uPVC Frames

“What is a double glazed unit and how to fit them properly for top performance.”

WHAT IS DOUBLE GLAZING?

Put in simple terms, a window with two layers of glazing. There are two types of double glazing; the earliest type is Secondary Glazing whereby a second glazed frame, which is usually made from aluminium, is fitted behind the main window. There is not much call for it nowadays but there are still some useful applications for this type of double glazing, (commercial installations, listed buildings, sound reduction and for those that simply do not wish to change their windows). The second type is called a sealed double glazed unit or D/G unit for short.

WHAT IS A DOUBLE GLAZED UNIT?

A double glazed unit consists of two pieces of glass separated by a spacer bar and hermetically sealed all around the edge. The spacer bar is a hollow tube which contains desiccant (moister absorbing granules') which will absorb any moister which is sealed into the double glazed unit during manufacture. These tubes vary in width from 6mm to 20mm and more, when this is sandwiched between two pieces of 4mm glass it will give the makeup description for the double glazed unit i.e. 4-20-4 will give the highest general specification used to-day for a 28mm unit. The insulation value of double glazed units can be further increased by replacing the air inside with Argon gas, this is done during manufacture just prior to sealing. The edge of the double glazed unit is sealed with a hot melt polysulphide sealant. Edge tape may also be used to cover the edges, this does not form part of the sealing arrangement and is used to provide comfort and a degree of safety during handling and installation.

WHAT IS A FAILED UNIT?

The symptom of a failed unit is condensation forming BETWEEN the panes of glass. This indicates that the sealant has failed and allowed the ingress of moisture sufficient for the desiccant to become saturated and therefore ineffective and the moist air will condense into water. The risk of premature failure is why it is so important to use packers correctly during installation. I have seen all sorts of inappropriate material used for packing, wedges of timber, folded up cardboard even foam travel pads used during transportation of units. Worse still is using no packers at all, never fit a double glazed unit without packers as this can allow the unit to sit in water which may gather quite normally in the rebate of your frames, this is why uPVC frames have integral drainage slots machined into them.

Some people mistakenly think that condensation on the outside is an indication of a failed unit. THIS IS NOT THE CASE if you can wipe away the condensation the double glazed unit has not failed.

INSTALLING DOUBLE GLAZED UNITS

These instructions are for installing double glazed units into uPVC frames.

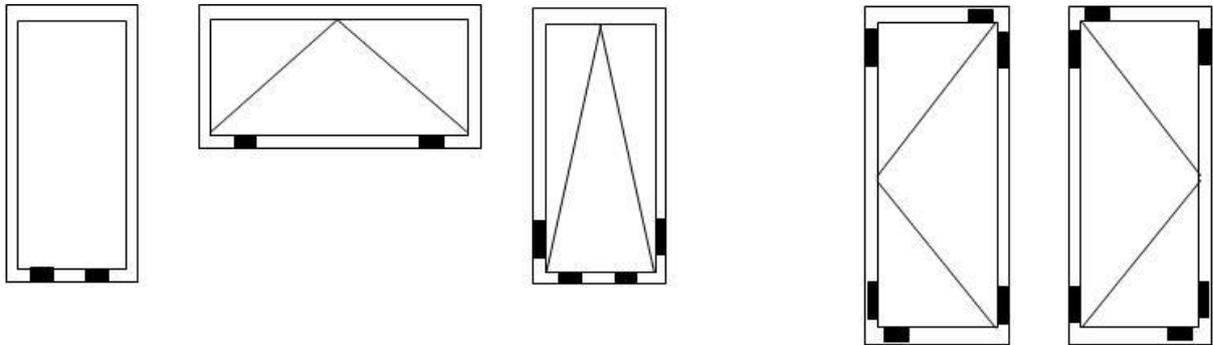
Starting with one of the longest beads first, remove the glazing beads by pushing a sharp chisel or a rigid paint scraper between the bead and the frame joint at approximately the centre point. A sharp tap on the butt of the tool should allow the bead to be freed. It is most important to refit the beads in the same positions as they were removed, they may vary in length slightly due to the manufacturing process.

1. Place into position the glass packers approx. 100mm in from each corner. (Intermediate packers should be used if the double glazed unit is wider than 1200mm).
2. Place the double glazed unit into the frame ensuring correct positioning on the glass packers.
3. Starting on one of the shortest lengths, fit 3 of the beads using a rubber mallet, finally fitting the last bead by bending into position.

N.B. It is always best to leave one of the longer beads until last as a long bead will locate and bend more easily.

TOE & HEELING

It is essential that glass packers are used to support the double glazed units to prevent them from standing in any water that may collect in the frame rebate. This can cause failure of the seal of the double glazing and will invalidate your guarantee if packers are not used. Packers must not cover the drainage holes in the frame. Both leaves of the double glazed unit must be supported by the packer, do not allow the packer to support one leaf only as it may bed into the sealant and cause failure of the unit.



Fixed glass and top hung openers

Side opening vents and doors

CONCLUSION

The objective of toe & heeling is to transfer the weight of the glass onto the hinge side of the frame. Correct use of this technique will give trouble free operation once the vents have been set correctly. The vent should be flexed upwards if necessary to allow the insertion of the top packers.

N.B. Adjustment of hardware should not be attempted until the frames and glass has been correctly packed and installed.

All double and triple glazed units supplied by Easyfit Window Warehouse are manufactured to B.S. and C.E.N. standards and are of the highest quality available.

All frames are supplied with the appropriate glass packers.