



National Federation of Glaziers

Excellence and Integrity in Glazing

TRIPLE GLAZING FACTSHEET 2014

This year has seen some of the largest suppliers in the glazing offering triple glazed windows and doors. What benefits can triple glazing offer over double glazing?

Using triple glazed instead of double glazed units may, from a simplistic view appear to offer greater insulation and noise reduction.

There are a number of facts which need to be considered before choosing triple glazed, rather than double glazed windows. These include:

1. It is, indeed, possible with triple glazed sealed units to improve the energy saving properties of windows, but, typically, this needs 44mm width sealed units to be installed, which are very difficult to install into the normal 70mm width frames. These frames are designed to take 24 – 28mm width frames with a pleasing appearance. When larger sealed units are used, specially designed glazing beads are necessary, which are not so elegant.
2. It is also possible to use triple glazed 28mm width units, but in order to give a comparative energy saving with double glazing, 2 of the panes will need to have low-e coating. This cuts down the light, and means that more internal lighting will be needed (increasing energy use).
3. According to the British Research Establishment, the middle pane can reach a higher temperature than the outside panes, which could cause cracking. The best solution is for the centre pane to be toughened, which will further increase the cost.
4. Apart from energy saving good quality windows will provide "solar gain", which is a measurement of the heat a glass sealed unit will allow through it from outside. Triple glazing is less efficient than double glazing in this respect by at least 10%.

BEWARE of so called "TRIPLE GLAZING at DOUBLE GLAZING PRICES" scam – Check out the value for money

5. From an environmental point of view, triple glazing, which uses 50% more glass than double glazing, needs 90% more embodied energy in production:
6. There are some claims that triple glazing is more efficient than double glazing for noise reduction. It is not necessary to use triple glazing to reduce noise; the best solutions are sound absorption glasses which all major glass manufacturers produce. These can easily be incorporated into double glazed units, providing energy efficiency and sound reduction at the same time.
7. Triple glazed sealed units are 50% heavier than double glazing which means that hardware, such as hinges need to be more robust, and a responsible company will use more labour, thus increasing the cost even more.

Summary: Triple glazed units, use more resource than double glazed units, are more expensive to produce and offer very little, if any, advantage over double glazing unless much wider sealed units than standard double glazing (24 or 28mm) with wider (more than 70mm width) better insulated frames are used.

From a point of view of value for money, double glazing is far better than triple glazing.