



High Performance External Doors

High performance external doors can be solid, partially glazed or fully glazed. They can be constructed of uPVC, aluminium, timber or a combination of these materials. Fully or partially glazed doors will be either double or triple glazed with a thermal barrier (sometimes called a 'thermal break') between the panes of glass.

The glass panes have air or an inert gas like argon between them which prevents heat passing through. Thermal breaks also reduce the level of noise which is transferred through the door either from the outside or inside of your home. Modern high-performance doors are not only better insulated, but they are also likely to fit much tighter in the door frame and therefore reduce draughts.

Minimum energy efficiency standards

When an external window or door is replaced, it needs to meet current Building Regulation standards. These standards consider the whole window or door, which includes the frame or internal elements, because it is not just the glazing that affects heat loss.

The U-value is a measurement of heat transfer through a building element like a window, door, or wall. The lower the U-value, the slower heat can move through the element from the inside to outside, making it more energy-efficient.

We can see on the following example that:

A Solid timber door has 3.0 U rating. whilst a new uPVC door has a U rating of just 1.8. Therefore, losing just 60 per cent heat by comparison.



U-values can be confusing, and so new windows and doors also have an energy rating, like those on fridges and washing machines which you may be familiar with. Energy ratings enable you to compare window and door products and choose those most appropriate for your home.

With the British Fenestration Rating Council (BFRC) scheme the highest rating is A++, and the lowest rating is C for windows and E for doors. Other window energy rating labels exist (British Standards Institute, CERTASS) and work in the same way.



Low Cost Energy Savings

- ✓ Buying a new TV, washing machine or dishwasher? Look out for the energy efficiency rating, and go for A-rated or better.
- ✓ Get a hot water cylinder jacket. A thick insulating jacket can save around £50 on bills a year.
- ✓ Dodge the draught! Fit draught excluders to your windows, doors, letter box and key hole to keep the draughts out and save you £25 per year.
- ✓ Fit radiator reflector panels. These slot behind a radiator that's on an outside wall and reflect the heat back into the room.
- ✓ Replacing old style lightbulbs with LED and save £30 a year. Plus they don't need changing as frequently.
- ✓ Change your head. Fit a water efficient shower head and save £30 a year.
- ✓ Insulate your loft. A house loses 25% of heat through the roof. Loft insulation is a cheap way of saving money on your home and can be done yourself.



Draught Proofing Window



Changing to energy efficient light bulb



Loft Insulation