

LEARN MORE ABOUT DOUBLE GLAZING QUALITY AND TECHNOLOGY

It's important that your windows are both visually attractive and secure. But it's also crucial that they save you money on your heating bills by being energy efficient. Windows with Energy Ratings are the most technically superior glazing solutions available for your home today the higher the U value the more you save with your energy bills.

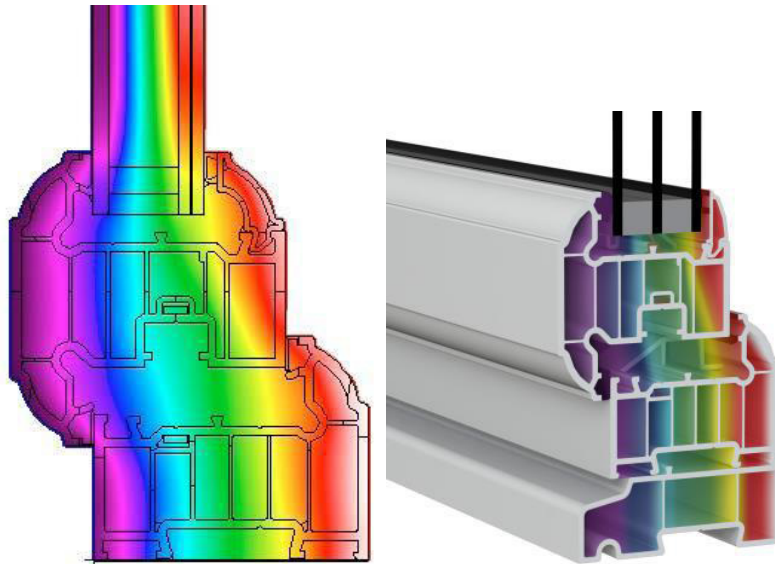
THE WER RATING

To measure the effectiveness of our windows, we use a WER rating (Window Energy Rating) developed by the British Fenestration Rating Council (BFRC), which is the UK's nationally recognised scheme for measuring window energy efficiency.

The rating system grades window performance based on letters from 'G' for the worst performing window up to 'A' as the best performing window. Since introducing the rating windows have improved dramatically so the BFRC have added a further score for the best performing windows by adding a number to the A to create an A1 rated window for example. Anything above an A10 becomes A+ and in October 2015 the BFRC introduced the A++ rating for windows that achieve higher than A20.

All Southeast Windows Ltd installations have A+13 as standard Casement Windows with an option of A++ giving an incredible U-value of 0.8 W/m²K when manufactured with triple glazing – achieving Passivhaus standards and helping towards creating a carbon neutral dwelling. The uniquely designed six-chambered Energy Plus system not only prevents the transfer of cold air from outside to in, it outperforms the highest energy performance standards currently in existence.

The cross section shows how Liniar's multi-chambered profile prevents the transfer of heat from the inside to the outside Red showing the inside.



The governing bodies at the BFRC (British Fenestration Ratings Council) calculate a windows energy rating based on

1. U-Value (of the glass U_g & the frame U_f)
2. The solar heat gain or 'G Value' (of the glass)
3. Air leakage rate of all the components of the fitted window L value.

THERMAL EFFICIENCY – U VALUE

A window's U value is the technical way to measure heat loss. It considers the heat transfer from the warm side to the cold side of the window. How much heat is transferred depends on the type of glass and type of gas and spacer bar between the panes. The lower the U value the warmer your home will be.

SOLAR GAIN - G VALUE

The solar gain is a measurement of how a window lets heat in by capturing the sun's rays. It is measured by the G value, on a scale between 0 and 1, with the higher number indicating high solar gain and the better your window is at capturing the sun's free heat energy.

London Windows, to help us achieve low U values on our windows we use low-e glass. Low-e glass has a coating on one surface that reflects heat energy back into the house. In addition, between the panes of glass, we use argon gas instead of air and a warm edge spacer bar to improve thermal efficiency and further reduce heat loss.

Low iron glass is clearer today, unlike in the early years of glass technology it had a smokier tint that made your net curtains look dark or dark green tint, the new low iron e-glass eliminates this and lets in more light that allows you to harvest more of the sun's free heat energy.

AIR LEAKAGE - L VALUE

Air leakage occurs when there is a weak point around the window, such as a poor rubber seal. The air leakage factor measures how airtight your windows are, which should have an L value of zero (0.00W/m²k), making them less draughty and more energy efficient.

INSULATION

A typical kitchen window measuring 1600 mm x 1100mm with a 5mm gap all round for movement and expansion.



If you leave the gap around this window uninsulated you may as well leave a hole 140mm x 50mm in the window this is the size of a new iPhone! imagine a hole in the window this size?

The window industry standard way of finishing a window is to use expanding foam around the perimeter and seal with a Silicon/low modulus type sealant or a flexible trim to hide any unsightly dodgy finish. This type of window sealing method means loss of heat from edge seal approximate U-value of 2.8 w/m k giving minimal sound proofing.

So, you have spent your hard-earned money on a superior A+ window and the perimeter seal is letting you down.



The Future is here:

SO-Chemie ISO-BLOCO WIN2WALL tape. The tape is stuck on to the frame before installation and expands to fill the gap around the frame expanding from 2mm to 8mm, sealing the gap and reducing the energy leak out of the window area. No silicones or trims needed - and now included in GGF "Good practice Guide BS8213-4:2016".

ENERGY EFFICIENT SEALING METHOD

- 1) Reduced heat loss from edge seal U value of 1.2 w/mk2 sound reduction of 43b
- 2) Totally uniform colour totally weather proof against driving rain to Force 11 storm force.
- 3) Guaranteed for 10 years no splitting of edge seal due to unique expanding sealant. Where silicone would eventually lose the seal over time, win2wall creates a total seal always.



3 Joint sealing tape that has 3 level sealing for windows and doors.

Application of Tape.



All you see is a shadow around the frame after the foam has expanded, with the foam following the contours of the brickwork perfectly and with no silicon lines leaving you a waterproof and sound proof finish, guaranteed UV stable for ten years with a life expectancy 25 years+ Where silicone would eventually lose the seal over time, win2wall creates a total seal every time.

What is Building Regulations Part 'E'?

Noise control in buildings for residential use in England and Wales is regulated using Approved Document E. This Building Regulation now applies to any kind of building used as a dwelling, including houses and apartments; and rooms for residential purposes, such as students and nurse's accommodation, homes and hotels. It also applies to dwellings that have been created because of a conversion or material change of use.