

# Window Energy Ratings

Up to 20% of your home's heat can be lost through your windows.

That's why it's important to make sure your new windows are as energy efficient as possible

The Window Energy Ratings scale is designed by the British Fenestration Ratings Council (BFRC) to measure the thermal performance of windows, and enables different windows to be compared on a scale that runs from A++ down to E.

You may be familiar with the rainbow label, as similar labels should be on the back of your fridge, freezer and other white goods.

Your windows should be supplied with a similar label to confirm how efficient they are – and the higher the rating, the more heat they'll keep inside your property.

The BFRC rating indicates how well a product will:

- help you contain and conserve heat within your property when it's cold outside
- keep out the elements
- resist condensation on the inside of the window
- contribute to improved sound insulation.

# Liniar helps generate energy for eco-house project

A house featured on the BBC programme 'The House that £100k Built' was designed with Liniar EnergyPlus windows, due to their incredible thermal efficiency. U-values of 0.8W/m²K were achieved, with the house actually generating more electricity than its owners consume.

You can read the full story on the Liniar website at www.liniar.co.uk/case-studies.

# How Liniar PVCu profiles work

PVCu is a natural insulator, so it's one of the most energy efficient materials for a window frame. Inside a Liniar frame, multiple chambers act as barriers, making it difficult for the heat inside your home to be transferred through and escape outside.

The drawings opposite show the inside of a Liniar standard and EnergyPlus frame, the colours representing heat and cold – with red symbolising the heat from your home and purple the cold air coming from the outside.

### Patented designs

Liniar has patented a number of additional features that make its frames more energy efficient.

## Spacer bars

Warm edge spacer bars can be selected, separating each glazed panel for higher energy efficiency.

#### Thermal dam

The patented thermal dam creates a multi-chamber thermal barrier at the frame's outer edge.

### Glazing

Liniar profiles are able to accept either double or triple glazing, depending on your requirements.

# Bubble gasket

Liniar's patented 'bubble' gasket is co-extruded alongside the frame itself – so no heat loss or leaks.

### Glazing flipper

Liniar's unique glazing flipper creates a thermal barrier to seal the perimeter keeping the cold out.

The result is a supremely energy efficient glazed product, capable of achieving the highest possible Windows Energy Rating of A++ or a U-value of 0.8 W/m²K with triple glazing. Ask your Liniar fabricator or installer for more information, or use the Liniar WER Calculator at www.liniar.co.uk/WER-calculator to find out all the different options available.



# Standard vs. EnergyPlus

Why pay to heat your home and lose up to 20% of the heat through your windows and doors?



Liniar PVCu window and door profiles are available in two formats - both extremely energy efficient.

- Standard 4 symmetrical chambers, achieving U-values as low as 1.2 W/m²K
- EnergyPlus 6 symmetrical chambers, achieving U-values as low as 0.8 W/m²K

Both standard and EnergyPlus profiles are completely interchangeable and look exactly the same from the exterior - the only difference you'll see as your windows are fitted is the protective tape, which will feature the EnergyPlus logo if you've ordered 6-chamber windows.

Liniar standard 4-chamber profile offers a cost effective option with energy efficiency that still beats most similar types of PVCu window.

However, if the highest possible thermal efficiency is one of your selection criteria, Liniar EnergyPlus profiles can achieve an A++ rating without the need for expensive low-iron glass on the outer pane of glass or the need for costly thermal inserts, making it a cost effective choice overall.

Both standard and EnergyPlus profiles are available in either chamfered (bevelled) or sculptured (curved) styles, depending on the product. Please see individual product pages for more details.



