



**eltherington**

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# Sustainability Guide



## Aluminium - environmental material of choice

There are many good reasons to specify aluminium for your project in terms of strength and low maintenance. The material is also the environmentally friendly building material of choice and here are some facts and figures:

Aluminium as a building material is being favoured by specifiers who need to meet the green concerns of their customers.

A recent report claims to have found Aluminium in 'excellent condition' dating back over 60 years in buildings in Birmingham. For those of you who like a bit of football trivia - 96% of the aluminium from the original Wembley Stadium has been recycled!

### **Below is a list of facts about Aluminium as a sustainable metal:**

- Aluminium is the third most common element in the Earth's crust.
- More than 55% of the world's primary aluminium is produced using hydroelectric power (no CO<sub>2</sub> emissions and renewable).

- Aluminium is infinitely recyclable with no loss of quality.
- Recycled aluminium requires only 5% of the energy used to produce primary aluminium.
- Aluminium used in building can be recycled up to 100%.

### **Sustainability and the Green Guide**

Eltherington remains committed to Sustainable Manufacturing in all areas of our business. We have ongoing investment and improvement programmes in recycling, reduction of waste and saving energy.

Eltherington rainscreen cladding can achieve an A-rating if fitted in accordance with the Green Guide.

The BRE Green Guide states that: "Due to their lightweight nature, framed structures generally score better than their masonry counterparts. A-ratings can be achieved using all conventional cladding materials."

# PVCu - sustainability time after time

The PVC-u used in our profiles is a high quality thermoplastic, which means it can be repeatedly recycled. In fact, the BRE (Building Research Establishment) has reported that PVC-u can be recycled up to 10 times without loss of performance. It has also given PVC-u windows a Reference Service Life (RSL) of 35 years, which means that the material has a life of 350 years.

The BRE has awarded PVC-u an A rating for sustainability when used on domestic, and an A+ when used in commercial developments.

All our PVC-u is recycled and made into new profiles, which are used throughout the ancillary range of products - for example Cills.

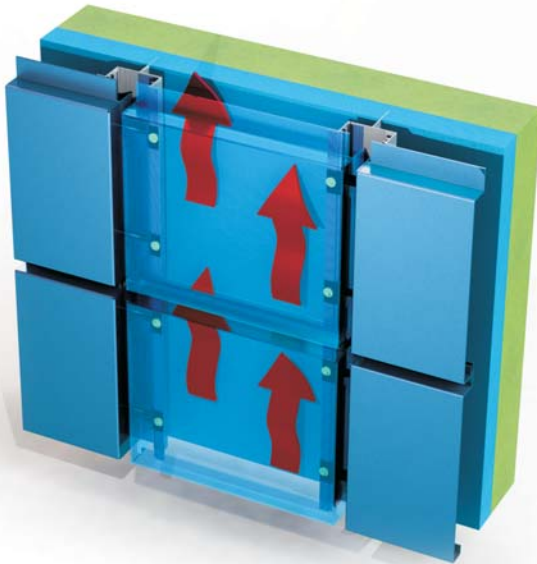
- Our PVC-u profiles, when fabricated into windows and doors, provide an outstanding barrier against heat and noise loss - even in the most extreme weather conditions.
- Windows and doors made from PVC-u profiles avoids the use of timber, protecting the planets trees.
- During extrusion of our PVC-u profiles all material is recycled and used to create new products, whilst still retaining the highest standards in quality of material.
- Our PVC-u profiles do not require painting and therefore don't consume additional harmful materials or generate associated waste.
- Our entire manufacturing process - from production to installation - is confined to the UK and Ireland thereby minimising transportation and fuel consumption from wider exportation.



# Ventilated Rainscreen Systems

## Rear-ventilated cavity - sustainability benefits

Rear-ventilated facades have been used for centuries in the form of traditional weatherboarding. More recently, the use of lightweight, strong facade materials such as aluminium have made these benefits accessible to a wider selection of buildings.



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**Eltherington Group Limited**

Dansom Lane South, Hull,  
East Yorkshire, HU8 7LA

**T: +44 (0)1482 320336**

**F: +44 (0)1482 329956**

**E: [info@eltherington.co.uk](mailto:info@eltherington.co.uk)**

**[www.eltherington.co.uk](http://www.eltherington.co.uk)**

### These benefits include:

- lightweight construction compared to masonry walls, which also requires fewer foundation materials, resulting in a building with a reduced carbon footprint
- constant circulation of air keeps the exterior wall dry
- thermal bridging through the wall is eliminated due to no interruptions caused by floor slabs
- temperature fluctuations of the wall is minimised due to high levels of insulation within the structure
- interstitial condensation is prevented as vapour pressure and wall temperature prevents this forming within the ventilated cavity
- reduces solar gain during hot summer months
- Whole life benefit - aluminium is 100% recyclable. It can also be recycled an infinite number of times without loss of performance. These characteristics make it an ideal solution for creating a lightweight yet strong rainscreen cladding system. Eltherington makes extensive use of aluminium for both the rainscreen panels and support structure.

With the energy savings measures required by latest building performance requirements, rear ventilated cavities are gaining an ever increasing popularity with specifiers and building owners.