

# A+

## Jablite: an A+ for the environment

Eco-points as calculated by the BRE over a 60 year period for expanded polystyrene are only 0.043.

In the **Building Research Establishment's (BRE) Green Guide to Specification**, materials and components are assessed in terms of their environmental impact across their whole life cycle, within comparable specifications.

The Green Guide is part of BREEAM (BRE Environmental Assessment Method) the accredited environmental rating for buildings. The environmental impacts of commonly used construction materials are assessed for six different generic types of buildings:

- Commercial buildings
- Educational
- Healthcare
- Retail
- Domestic
- Industrial

The environmental rankings are based on Life cycle assessments using the BRE's Environmental Profiles Methodology 2008. This is a standardised method of identifying and assessing the environmental effects associated with building materials over their life cycle.

Materials and components are then arranged on an elemental basis, to allow specifiers and designers to compare and select from comparable systems as they compile their specification.

Insulation is one of nine elements covered. This data is then set out in a ranking of A+ to E, where A+ denotes the best environmental performance/least environmental impact and E denotes the worst environmental performance/most environmental impact. The environmental assessment of buildings allows the following points based on the Green Guide Rating.

The calculator awards points for each applicable element according to its Green Guide rating as follows:

Green Guide Rating	Points/element
A+	3
A	2
B	1
C	0.5
D	0.25
E	0

To achieve BREEAM 'excellent' ratings a higher percentage of materials and elemental constructions (i.e. walls, floors, roofs) used in the building need to be A+ – no extra recognition is given to A or worse. In all environmental calculations for buildings, points are earned for achieving the A+ rating. Less or no points are gained from achieving worse Green Guide ratings.

### Building Materials Life Cycle



This confirms what has long been recognised – that expanded polystyrene (EPS) is one of the most sustainable and best performing materials on the market.

[www.thegreenguide.org.uk](http://www.thegreenguide.org.uk)

Green Guide online provides designers and specifiers with easy-to-use guidance on how to make the best environmental choices when selecting construction materials and components.

**jabl**ite

# It is the highest possible ranking for any insulation material



Material and building systems are evaluated against the following specific environmental impacts:

- Climate change
- Water extraction
- Mineral resource extraction
- Stratospheric ozone depletion
- Human toxicity
- Ecotoxicity to freshwater
- Nuclear waste
- Ecotoxicity to land
- Waste disposal
- Fossil fuel depletion
- Eutrophication
- Photochemical ozone creation
- Acidification

The Green Guide offers independent advice and guidance on the selection of building products to enable architects, developers and contractors to make informed decisions relating to sustainability.

The Green Guide assigned an 'A'+ rating to EPS after comparing common thermal resistance of different insulation materials to enable a fair comparison. Materials were ranked both on the basis that the benefit of using any of the insulations listed in the guide will outweigh the embodied environmental impact of their manufacture, installation and end of life disposal over the life cycle. Expanded polystyrene was also rated highly due to its low environmental impact. It has an Ozone Depletion Potential (ODP) of zero and a low Global Warming Potential, which is exemplary.

With sustainable materials in demand at the moment within the construction industry, due to the tighter building regulations and the Code for Sustainable Homes, materials such as expanded polystyrene that have been proved to have exemplary 'green' attributes really do offer a compelling choice to the market.

Positive contribution to saving energy  
Jablite remains effective as an insulant for the entire life of the construction in which it is used. The energy used in the production process is recovered many times over by the energy saved in the buildings into which it is installed. 1kg of Jablite EPS saves at least 400 litres of oil over 50 years.

## Safe

Jablite is non-toxic and totally inert. It contains no HCFCs and never has at any time during its life cycle. Jablite is the ideal material to work with. It does not irritate the skin or nostrils and has no known adverse effect on health. It presents no health risk during installation or in its end use.

## Recyclable

Jablite EPS is fully recyclable and the company operates an environmental programme, recycling all in-house manufacturing waste, as well as recycling packaging and other waste EPS from external sources.

There are several ways to treat EPS building and demolition waste, each with environmental, technical and economic implications which require consideration:

## Grinding

This is generally the optimum solution for clean EPS waste. The material is ground into pebble-sized pieces and added to virgin raw material to produce new insulation sheets.

## Melting

EPS can be melted down to its un-expanded state and then extruded to make items such as plant pots, coat hangers and a wood substitute. In this form EPS can be used as part of mixed plastic waste to make items such as park benches and road signs, ensuring the plastic materials have a long and useful second life.

## Energy recovery

This involves the recovery of energy usually from incineration. The calorific value of EPS from incineration is slightly higher than that of coal by weight. In modern incinerators EPS releases most of its energy as heat, emitting only carbon dioxide, water vapour and trace of non-toxic ash. The fumes are non-toxic and are not harmful to the environment as no dioxins or furans are emitted. The energy gained can be used for local heating and the generation of electricity.

## Landfill

EPS waste is inert and non-toxic, which give stability to landfill sites. It also aerates the soil, encouraging plant growth on reclaimed sites. EPS does not degrade and will not leach any substances into ground-water nor will it form explosive methane gas.

**Jablite EPS can offer substantial environmental advantages and take a positive contribution at all stages if its life cycle from manufacture, through to application, to recycling or disposal.**

[www.jablite.co.uk](http://www.jablite.co.uk)  
**0870 444 8769**

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