

Delivering Sustainable Construction

With Kingspan **ECOsafe** Insulated Panels



*Climate
for Change*



Kingspan Insulated Panels Sustainability Vision

“ To be a global leader in sustainable business and establish a leading position in providing sustainable, renewable and affordable best practice solutions for the construction sector ”

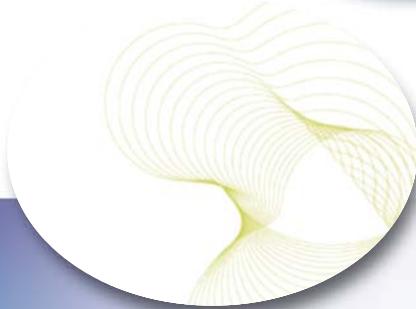


It is in the long-term interests of our business to act responsibly towards the environment and the communities in which we operate. We believe our products, which provide insulation that lowers the energy demand of buildings, can contribute to a more environmentally responsible economy. Sustainability is also becoming a key driver for our customers, who are typically involved across the whole commercial & industrial sector.

Kingspan Insulated Panels is fully committed to developing, researching and investing in environmental standards and practices so as to install a framework for activities, product design, services and decision-making that supports sustainable construction.



Kingspan **ECOsafe**
Insulated Panels 4



Kingspan **ECOsafe**
Insulated Panels & BREEAM 5



End of Life Management of Kingspan
ECOsafe Insulated Panels / Cost
Effective End of Life Management 6



BRE Environmental Profiling 8



Carbon Management Solution 10



Kingspan Insulated
Panels Sustainability
Objectives 11

The paper we have printed on is from 80% post-consumer waste and the remaining 20% pulp is TCF (Totally Chlorine Free). This fibre is FSC certified (see fsc.org for details). In recognition, the range has been awarded both the NAPM and Eugropa recycled marks, two of the most prestigious and recognisable recycled certificates available. The ink we have used is vegetable based, allowing the document to be recycled.



Sustainable Forest



Recyclable



Vegetable Based

Kingspan **ECOsafe** Insulated Panels

What are Kingspan **ECOsafe** Insulated Panels?

- Kingspan **ECOsafe** insulated panels use an environmentally sustainable **FIRESafe** PIR insulation core.
- Kingspan **ECOsafe** insulated panels are the result of extensive research and development work to provide an optimised and sustainable solution for our customers.
- All Kingspan **ECOsafe** insulated panels are Loss Prevention Certification Board (LPCB) fire certified.
- All Kingspan **ECOsafe** insulated panels have a low GWP (Global Warming Potential) and help to deliver optimum performance in environmental assessment methods such as BREEAM.



- Specific Kingspan **ECOsafe** insulated panels are independently audited and certified by the BRE as Green Guide 'A' Rated (within the highest performing specification section of the Green Guide to Specification). Specific advice should be obtained through Kingspan **envirocare** Technical Services on 0800 587 0090 on a project by project basis.
- Kingspan **ECOsafe** insulated panels are currently available for our Trapezoidal roof and wall panels and our range of Architectural Wall Panels including Optimo™. The process is currently being extended to our entire product range and we aim to have our full product offering **ECOsafe** in the near future.

End of Life Management of Kingspan *ECOSafe* Insulated Panels

End of Life

- All Kingspan *ECOSafe* insulated panels are classed as non-hazardous and do not contain CFCs, HCFCs or HFCs. Kingspan *ECOSafe* insulated panels have a commercial value for disposal at end of life subject to transport costs.
- A commercial service for dealing responsibly with the legacy of CFC and HCFC containing insulated panels at their end of life is now also available through the use of fridge recycling plants.



- The cost of processing panels through shredder plants is approximately cost neutral with the transport costs from site being covered by the scrap value of the steel. Economics for specific buildings will be dependant on transport distances, and the market value of steel scrap at the time of disposal.
- Shredder plants offer a proven solution for dealing with insulated panels incorporating non-ozone depleting blowing agents and are suitable for Kingspan *ECOSafe* insulated panels which can be safely processed as a co-feed with other scrap materials.



Cost Effective End of Life Management

Project 1

- Kingspan insulated panels were recently taken from a site in Hemel Hempstead and sent to a local shredder plant. In total 13,000m² of Kingspan Trapezoidal roof panel was disposed of at a cost of £0.18/m².

Project 2

- Kingspan insulated panels were also recently removed from a site in West Bromwich and were disposed of via a shredder plant. In disposing of 2,200m² of our Trapezoidal roof panel, there was a net income of £0.10/m².



Site: Hemel Hempstead

Qty m²: 13,000

Disposal Route: Shredder

Average Cost Per m²: £0.18p

Site: West Bromwich

Qty m²: 2,200

Disposal Route: Shredder

Average Income Per m²: £0.10p

BRE Environmental Profiling

What is Environmental Profiling?

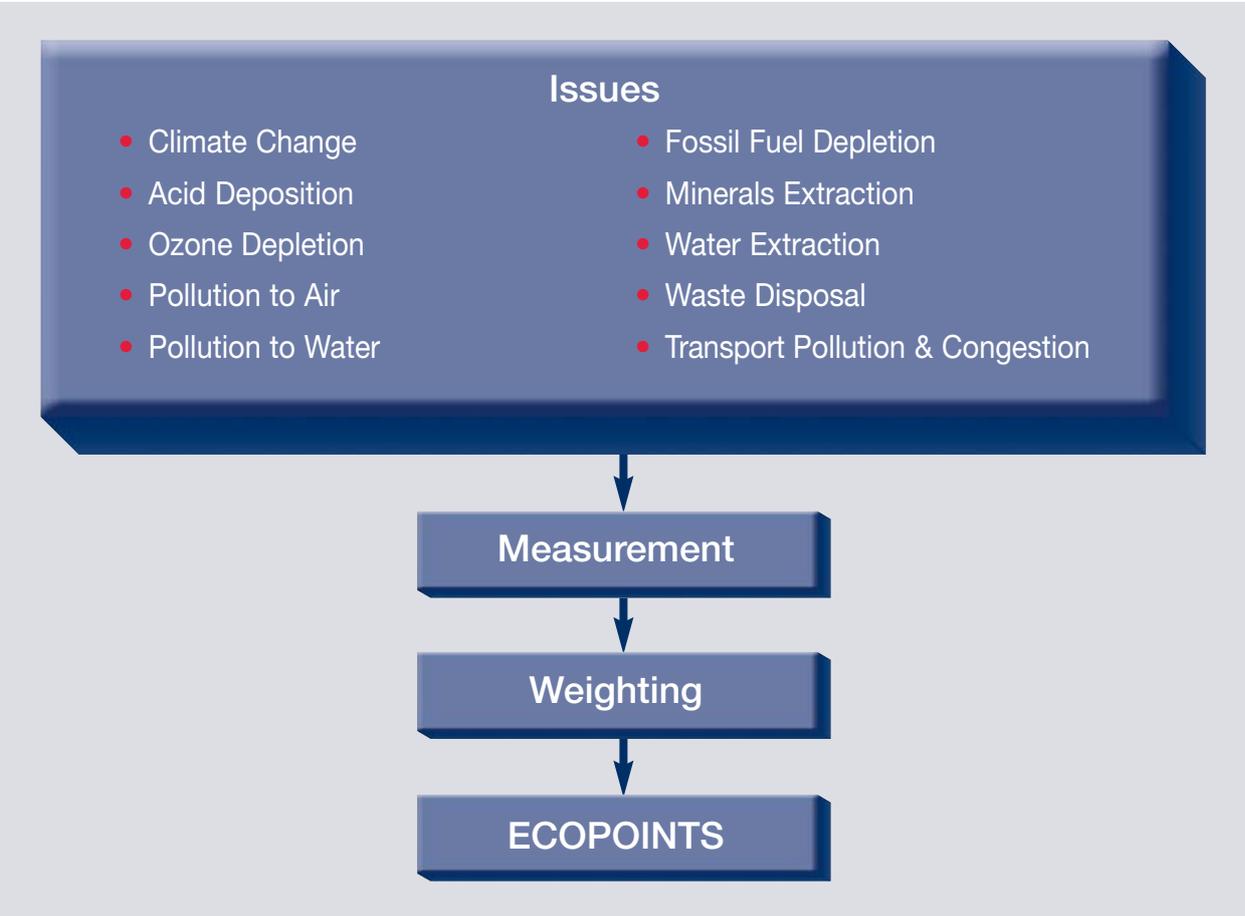
- Environmental Profiles are a method of presenting environmental data which cuts through the confusion of claims and counterclaims about the performance of building materials.
- Environmental Profiles allow designers to demand reliable and comparable environmental information about competing building materials, and give suppliers the opportunity to present credible environmental information about their products.
- They provide a set of common rules and guidelines for applying Life Cycle Assessment (LCA) to UK construction products, to produce Environmental Profiles and a UK database to create a one-stop-shop for environmental information provided by industry.
- Methodology- The Life Cycle Assessment (LCA) methodology used for Environmental Profiles has been peer reviewed and complies with ISO14041, an internationally established approach for analysing the environmental impacts of products and processes. The system fits well with the ISO14001 environmental management principles.
- BRE devised the methodology in partnership with Government and 24 Trade Associations from the construction products sector to provide a single, consistent approach for applying LCA to all types of construction products.

The diagram below shows the issues considered by the BRE in Environmental Profiling, they then measure and weight your product against these issues and finally give you an Ecopoints score based on this.

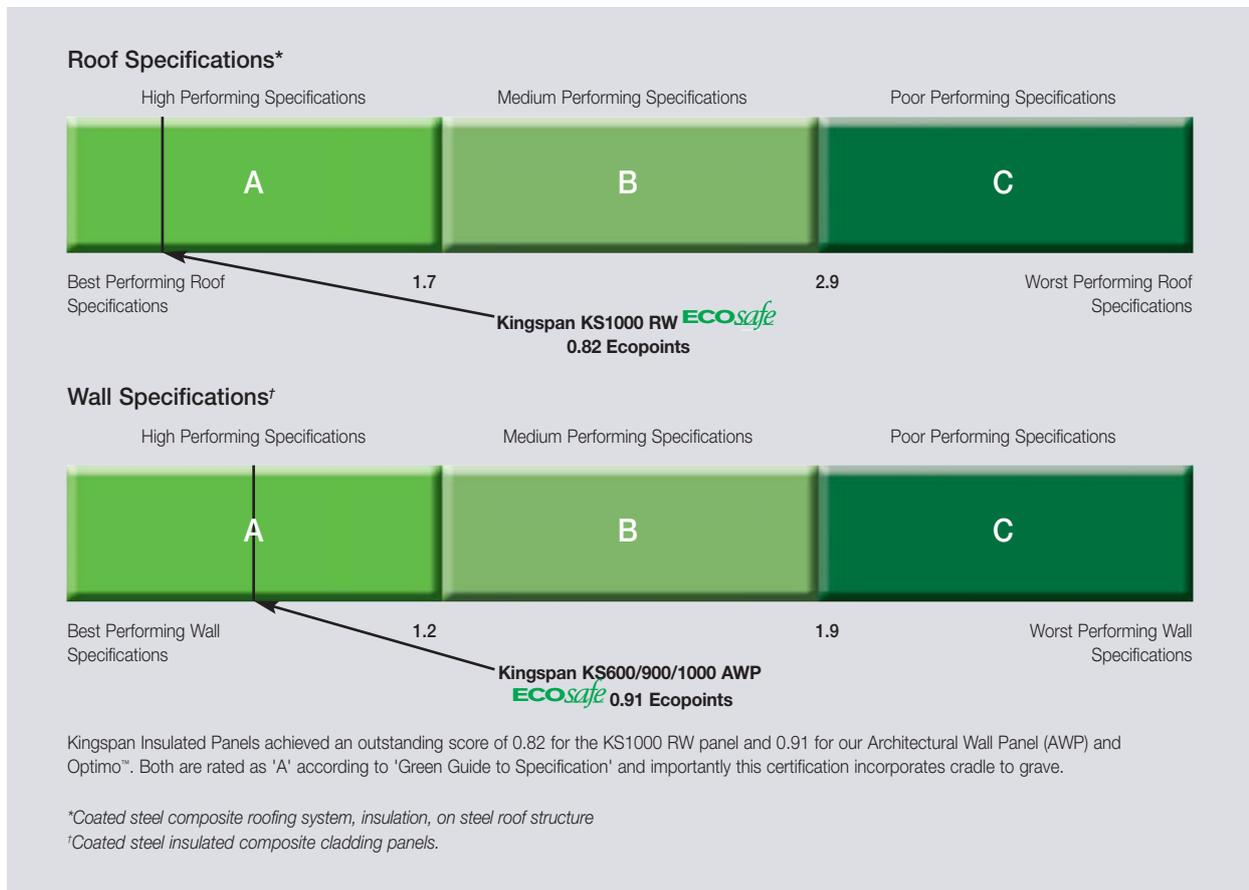
bre



Environmental Profiles Scheme
Certificate Number ENP 358



Cradle to Grave Diagrams



Kingspan Insulated Panels and Environmental Profiling

- In 2006, Kingspan Insulated Panels was the first manufacturer in the metal roof and wall cladding industry to begin a process with the BRE to identify and assess the environmental effects of our panels from 'cradle to grave'.
- The BRE analyses data across a range of environmental issues, from cradle (inception and raw materials) to grave (disposal) of some of Kingspan's key products.
- We are delighted that panel systems profiled so far have achieved a Green Guide to Specification 'A' rating and are now in the process of rolling out certification to the remaining products.
- Environmental profiling of our products is just the first stage in what is now an ongoing process to find ways to reduce the environmental impacts of our products throughout their whole lifecycle. We also intend to use the BRE profile to drive change in environmental practice throughout our whole supply chain.

Benefits of BRE Certification

- Independent, verified and audited performance according to internationally recognised methodology.
- Provides data for achieving additional credits in BREEAM schemes.
- Identifies areas for further improvement.
- Delivers 'Green Guide to Specification' rating.

Credibility

- Certificated Environmental Profiles are reviewed and verified through detailed auditing on an annual basis to ensure that information is both valid and up-to-date, and are recalculated every three years. An Environmental Profile certificated by BRE Certification is prepared according to Scheme Document SD028.

Carbon Management Solution



Going Beyond Carbon Neutrality

- In 2006, Kingspan Insulated Panels was one of the first UK manufacturers to sign up to membership of dcarbon8. dcarbon8 is a carbon solutions company, that works with organisations to manage the carbon footprint associated with their business operations and product manufacture.
- Working with other leaders in this area, dcarbon8 has established a new standard; Planet Positive™. **This means that companies are able to go beyond carbon neutrality and contribute to a net reduction in atmospheric carbon loadings**, which has positive impacts on the Earth's ecosystems and the communities that live and work within them.
- Our long term aim is to provide our customers with products and services that are carbon neutral or ideally carbon negative (neutral +10%), i.e. Planet Positive™.
- **dcarbon8 provides us with the mechanism to identify carbon reductions from a variety of internal and external sources including our suppliers and in-house initiatives such as the use of renewable energy, waste reduction, and plant energy efficiency.**
- dcarbon8 has an annual audit by third party assurance provider KPMG to ensure adherence to the Planet Positive™ Protocol. The Protocol sets the standard for becoming Planet Positive™ and ensures companies follow strict guidelines which have been developed to global best practice standards and was established in consultation with Environmental Resources Management (ERM).

dcarbOn8[™]
a loyalty plan for earth

Planet Positive[™]

A product, person or business is Planet Positive[™] if it has measured and verified a net positive impact on the planet, its ecosystems, and its people.

“ dcarbon8 helps stimulate responsible carbon management throughout our supply chain and identifies in-house improvements and initiatives ”

Kingspan Insulated Panels Sustainability Objectives

Kingspan Insulated Panels Long-term Sustainability Objectives

Kingspan Insulated Panels aims to adopt and apply best practice sustainability principles by ensuring environmental, social and economic parameters are considered in an integrated way in product and service delivery.

- **Sustainable Product Stewardship**
Ensure sustainability is considered in the design and manufacture, and promoted in the installation, use and disposal of Kingspan Insulated Panel's products and services.
- **Carbon Management**
Measure and actively reduce Kingspan Insulated Panels' carbon footprint with the long-term aim of going beyond carbon neutrality.
- **Optimise use of Resources**
Minimise waste, harmful emissions and water usage associated with the manufacture, distribution and, where possible, the end-of-life management of Kingspan Insulated Panel's products and services.
- **Sustainable Building Design**
Consider best practice sustainable building design when constructing or refurbishing Kingspan Insulated Panel's manufacturing facilities and ensure the sustainable management of all sites used by Kingspan Insulated Panels.
- **Ethical Procurement & Supply Chain Management**
Develop an ethical procurement strategy for procuring materials and services. Engage with prioritised suppliers and contractors to ensure that they operate to similar sustainability standards and seek to build-long term relationships with key suppliers and contractors.
- **Stakeholder Engagement**
Engage key stakeholders in Kingspan Insulated Panel's Sustainability Strategy and ensure our employees are fully involved in helping deliver the Sustainability Policy.
- **Social Responsibility**
Support Kingspan Insulated Panel's employees and uphold our corporate social responsibility to the communities in which we do business.



For more information on any issues
in this document please contact:



UK FREEPHONE 0800 587 0090

Ireland +353 (0) 42 9698521



Kingspan Limited

UK: Telephone: +44 (0) 1352 716100 Fax: +44 (0) 1352 710161 Email: info@kingspanpanels.com

Ireland: Telephone: +353 (0) 42 96 98500 Fax: +353 (0) 42 96 98572 Email: sales.ire@kingspanpanels.com

Details for the following countries; Australia, Belgium, Czech Republic, Germany, Hungary, Netherlands, New Zealand, Poland, Romania, Slovakia
can be found by visiting our website www.kingspanpanels.com or our group website www.kingspan.com

Care has been taken to ensure that the contents of this publication are accurate, but Kingspan Limited and its subsidiary companies do not accept responsibility for errors or for information that is found to be misleading. Suggestions for, or description of, the end use or application of products or methods of working are for information only and Kingspan Limited and its subsidiaries accept no liability in respect thereof.