



# Foreword from the Managing Director

Welcome to the Kingspan Insulation Ltd. Sustainability & Responsibility Report for the calendar year 2011.

The report covers the UK business of Kingspan Insulation Ltd., which includes its headquarters at Pembridge, Herefordshire, and a manufacturing site at Selby, North Yorkshire.

This report was published to present an holistic picture of Kingspan Insulation Ltd.'s long-term commitment to sustainability and responsibility in all of the company's guises: as a manufacturer of insulation products; as an employer; as a substantial landholder; and as a key member of its neighbouring communities.



Kingspan Insulation Ltd. has reported annually on its sustainability performance since 2004, and significant progress has been made in improving the company's performance over this time period.

Kingspan Insulation's reporting embraces the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines, to ensure a more comprehensive approach to reporting. The G3 Guidelines provide a globally recognised framework for reporting on an organisation's economic, social and environmental performance.

Kingspan Insulation Ltd also undertakes an external assurance process, to ensure the accuracy and robustness of the data upon which this report is based. Further information on the reporting methodology can be found in Appendix A.


The data and commentary in this report summarise Kingspan Insulation Ltd.'s journey since 2004, and highlight key achievements from the calendar year 2011.

Work to bring the sustainability and responsibility performance of Kingspan Insulation Ltd.'s manufacturing facility at Selby, up to the same level as at the company's Pembridge site, has continued. This is particularly challenging, primarily due to the poor baseline level of Selby in comparison with Pembridge.

The continuing global economic recession in 2011, has resulted in a prolonged downturn in the market. A consequence of this has been to affect the economies of scale of the business. Rather than simply ride out the storm, Kingspan has chosen to use the impetus that this has generated to further improve its operating efficiencies to compensate for the reduction in scale economies.

Kingspan Insulation Ltd. maintains a strong commitment to sustainability and responsibility, and as such this report also sets out a plan of action for continued progress in the coming 12 months.

*John Wilson*

	2002 In Accordance	C	C+	B	B+	A	A+
Mandatory	Self Declared						
Optional	Third Party Checked		Report Externally Assured		 Report Externally Assured		
	GRI Checked						

GRI Application Level



# Contents

Foreword from the Managing Director	2
<b>Kingspan Insulation</b>	<b>4</b>
Product Range	4
Governance	5
Code of Conduct	5
Mission Statement and Principles	6
Sustainability Policy	6
Responsible Sourcing Policy	6
<b>Reporting Principles</b>	<b>8</b>
Sustainability and Responsibility	8
Reporting History	8
Current Reporting Procedure	9
Current Report Structure	9
<b>2011 Highlights and 2012 Key Targets</b>	<b>10</b>
2011 Highlights	10
2012 Key Targets	11
<b>Performance Summary</b>	<b>12</b>
Economic Viability	12
Stakeholder Engagement	14
Employment & Skills	16
Health & Wellbeing	18
Responsible Business	20
Product Design & Material Inputs	22
Raw Material Use & Manufacturing Efficiency	24
Water Management	26
Water Consumption & Disposal	28
Energy & Greenhouse Gas Emissions	30
Transport	32
Social and Community Initiatives	34
Biodiversity & Natural Heritage	36
Land Management & Premises	38
<b>Appendices</b>	<b>40</b>
Appendix A	40
Background to GRI G3 Guidelines	40
Appendix B	42
GRI Content Index	42



# Kingspan Insulation

**Kingspan Insulation Ltd. is a privately-held corporation whose liability is limited by shares. Kingspan Insulation is part of the Kingspan Group plc., one of Europe's leading construction product manufacturers. The Kingspan Group was founded in the late 1960s and is a publicly quoted group of companies headquartered in Kingscourt, County Cavan, Ireland. Kingspan Insulation Ltd. operates from two manufacturing facilities located near Pembridge, Herefordshire, and at Sherburn-in-Elmet, near Selby, North Yorkshire. Kingspan Insulation Ltd. operates out of the United Kingdom and supplies products primarily to the UK market.**

## Product Range

Kingspan Insulation is a market-leading manufacturer of premium and high performance rigid insulation products and insulated systems for building fabric and building services applications.

Kingspan Insulation Ltd products are suitable for both new build and refurbishment in a variety of applications within both domestic and non-domestic buildings.

Products manufactured by Kingspan Insulation Ltd at its Pembridge and Selby manufacturing facilities include:

- Kooltherm®, premium performance rigid phenolic insulation;
- Therma™, high performance rigid polyisocyanurate insulation;
- Thermabate® and Kooltherm® Cavity Closer, insulated cavity closers for use around window and door openings; and
- the Kingspan KoolDuct® System of pre-insulated ducting.

All Kingspan Insulation products are designed and manufactured to exceed the performance criteria required by the Building Regulations / Standards. They meet the exacting requirements of the construction industry and are manufactured to the highest standards under a management system certified to BS EN ISO 9001: 2008 (Quality management systems. Requirements), BS EN ISO 14001: 2004 (Environmental Management Systems. Requirements) and BS OHSAS 18001: 2007 (Health and Safety Management Systems. Requirements).



Assessed to BS EN ISO 9001

Each product has been designed to fulfil a specific need and has been manufactured to precise standards and tolerances. Many of the products hold BBA Agrément approval, further underlining Kingspan Insulation's commitment to quality.



Kingspan Kooltherm® K7 Pitched Roof Board can be used in new and existing pitched roofs at rafter level. Its use can create a warm, habitable, roof space. Kingspan Kooltherm is the highest performance, commonly used insulation material.





Kingspan Thermaroom® TR27 LPC/FM is a high performance flat roof insulation board for use under a wide range of waterproofing systems.

## Governance

The directors endorse and apply the principles of good corporate governance set out in the Combined Code on Corporate Governance. The Board provides the Company with entrepreneurial leadership and effective controls. It sets the Company's strategic aims and establishes the Company's values and standards.

The Board consists of seven statutory directors, each of whom has a combination of general business skills and experience in the construction materials market. The directors believe that the Board includes an appropriate balance of skills and ability to provide effective leadership and control to the Company. The Board meets formally each month, as well as informally as and when required. The Board reserves a formal schedule of matters on which it takes the ultimate decision. These include adopting the Divisional rolling five-year strategic plan and the annual budget, approving all major capital expenditure and material contracts, acquisitions and disposals of businesses and other assets, appointment of senior executives and succession planning, reviewing management's corporate and financial performance, and overall review of the company's internal controls.

The Managing Director is responsible for the leadership and effective working of the Board. He ensures that all members of the Board have an opportunity to contribute effectively and that there is appropriate and timely communication with shareholders.

As Kingspan Insulation is a wholly-owned subsidiary of Kingspan Group, there is no requirement to appoint non-executive directors to the Board. This function is in effect carried out by Group board members who have experience within the industry and within other Group companies.

All directors are supplied with appropriate and timely information for Board and committee meetings and are given the opportunity to probe and question the executives and to seek such further information as they consider appropriate. The Group's professional advisors are available for consultation with the Board and attend Board meetings as required. All directors have access to the advice and services of the Company Secretary, who is responsible for ensuring that Board procedures are followed. Individual directors may seek independent professional advice at the expense of the Company in furtherance of their duties as a director. The Group has arranged appropriate insurance cover in respect of legal action against its directors.

The Company has procedures whereby directors receive formal induction and familiarisation with the Company's business operations and systems and continuing training relating to the discharge of their duties as directors. Directors are appointed to the board based upon their particular experience and qualifications, together with the company need for specific functional, managerial or technical experience for the control and management of business operations.

## Code of Conduct

Kingspan Group plc is committed to acting responsibly in its business, and maintaining high standards of ethics and integrity in all its dealings with its stakeholders, be they investors, customers, suppliers, its people or the community in which it operates. A Code of Conduct has been adopted, which sets out the fundamental principles that all directors, officers and employees must adhere to in order to meet those standards.

The principles contained therein include:

- integrity and honesty;
- compliance with the law, including competition, corruption, fraud, inside information;
- avoiding conflicts of interest;
- people and environment, including health and safety, equal opportunities, environment, IT; and
- protection of Group assets, including internal controls, confidentiality.

The Code is intended to encourage and enable employees and others to raise serious concerns within the Group rather than seeking outside resolution. It is the responsibility of all directors, officers and employees to report any breaches of the policy, or any other malpractice or illegal acts. The Code of Conduct is upheld through a number of mechanisms:

- reporting violations;
- accounting and auditing;
- acting in good faith;
- confidentiality;
- no retaliation; and
- appropriate handling of reported violations.

## Mission Statement and Principles

Kingspan Insulation operates a mission statement, with the goal that:

*Kingspan Insulation will be the premium quality producer and supplier of non-fibrous thermal insulation whilst keeping people, the environment and the future success of the company at the forefront of its activities.*

The Group-level principles are supplemented locally by the Kingspan Insulation Employee Handbook and relevant provisions of other policies, covering issues such as Human Rights; Local Supply; Environment; Ethical Purchasing; and Equal Opportunities.

Kingspan Insulation recognises the importance of conducting its business in a responsible manner. This is demonstrated in the way the company deals with its employees, customers and the wider community in which it operates. To this end, Kingspan Insulation has formalised and adopted the following sustainability and responsible sourcing policies.

## Sustainability Policy

Striving for sustainability in all of Kingspan Insulation Ltd.'s products and operations is its responsibility.

Kingspan Insulation Ltd. 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.

To this end, Kingspan Insulation Ltd. will:

- incorporate the ethos of sustainability into the vision and values of the organisation;
- continue to invest in research and development in the area of maximising the insulation value of products;
- continually improve operational performance through the setting of long-term objectives and targets related to sustainability, and review progress regularly;
- comply with or exceed applicable legal and policy requirements related to the environmental and social aspects of the organisation;
- optimise energy and raw material usage and prevent or minimise pollution and environmental damage;
- continually monitor sustainability performance and actively communicate progress annually in the form of a published report, using the Global Reporting Initiative (GRI) guidelines;
- communicate and actively promote awareness and acceptance of this policy to everyone working for, or on behalf of, the organisation (including employees, shareholders, suppliers / sub-contractors and customers);
- ensure employees are given adequate training in sustainability issues and are fully involved in helping to deliver this policy; and
- implement a Code of Conduct and support sustainability guidelines for key suppliers, contractors and other interested parties to ensure that they comply with this policy.

Kingspan Insulation Ltd. is dedicated to adopting and implementing this policy.

The responsibility for implementing this policy lies with the Divisional Managing Director.

This policy forms a framework for Kingspan Insulation Ltd.'s activities, product design, services and decision-making, and promotes engagement of the entire organisation. The policy will be reviewed annually.

## Responsible Sourcing Policy

Kingspan Insulation's products improve the quality and sustainability of the built environment. Kingspan Insulation's aim is to ensure that the constituent materials used within the delivery of these products are responsibly sourced in accordance with the guidelines set out under the BRE Environmental and Sustainability Standard 6001: Framework Standard for the Responsible Sourcing of Construction Products.

In order to demonstrate this, Kingspan Insulation will maintain, implement and review:

- an Ethical Trading Policy, a Human Rights Policy and a Code of Conduct;
- procedures to ensure compliance with legislation;
- procedures to record and respond to all complaints and prosecutions;
- a Quality Management System certified to ISO 9001;
- a supply chain management system;
- an Environmental Management System certified to ISO 14001;
- a Health & Safety Management System certified to OHSAS 18001;
- stakeholder engagement and reporting; and
- policies, action plans and targets for:
  - reduction of greenhouse gas emissions;
  - reduction of resource use;
  - reduction of water extraction;
  - reduction of transport impacts;
  - reduction of waste;
  - life cycle assessment;
  - employment and skills; and
  - local community engagement.

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Kingspan Kooltherm® K12 Framing Board provided the ideal solution for architect Sam Stork during the construction of her own personal project - the £250k Corner House situated on the edge of the New Forest.



Kingspan Thermaroof® TR26 LPC/FM flat roof insulation has been used on the £165 million, Grimshaw Architects designed, expansion of London's first ICC and world-class exhibition and conference venue, ExCeL London.



Kingspan Kooltherm® K5 External Wall Board was used as exterior insulation for the recently completed £50m Phase 1 of the Indecon Court development in the heart of the Isle of Dogs Regeneration Zone, London, designed by Grid Architects for Galliard Homes.



# Reporting Principles

## Sustainability and Responsibility Reporting History

### 2002

In 2002, Kingspan Insulation Ltd. obtained its first certified Life Cycle Assessment from the Building Research Establishment (BRE), awarded for the Therma™ product range, which has been certified continuously since then.

### 2004

Kingspan Insulation Ltd. first commissioned Arup to undertake a sustainability appraisal of its Pembridge facility, near Leominster, Herefordshire, in 2004. The appraisal, which utilised the Arup SPeAR® framework, provided an indication of Kingspan Insulation Ltd.'s baseline sustainability performance at that point in time. By providing a series of recommendations, the SPeAR® appraisal enabled Kingspan Insulation Ltd. to produce an Action Plan for improvement during the year 2004–5.

### 2005

A second SPeAR® appraisal was conducted in 2005 to provide a re-evaluation of the Pembridge site, to document performance improvements, and to highlight further opportunities for progress based on ongoing weaknesses and evolving industry best practice. Kingspan Insulation revised its Action Plan accordingly, building in newly arising recommendations to supplement those actions outstanding from 2004.

### 2006

During 2006, a mid-term review was conducted to assess Kingspan Insulation's progress with the Action Plan developed for Pembridge during the previous two years.

### 2007

2007 saw a full SPeAR® re-appraisal of Kingspan Insulation Ltd.'s performance, to assess further progress and provide renewed impetus to the ongoing Action Plan for improvement.

In 2007 Kingspan Insulation Ltd. also commenced data collection for the environmental, economic, labour, social, and product-related performance indicators of the GRI G3 Sustainability Reporting Guidelines (see Appendix A). Whilst this data was not externally reported at the time, the database which was established enables the current report to build a comparative picture of progress from 2007 onwards.

### 2008

The company's commitment to continual performance improvement resulted in a fifth SPeAR® appraisal of the business, to review progress made in 2008.

Kingspan Insulation's report for the 2008 calendar year was supplemented, for the first time, with GRI indicator data, to ensure a more comprehensive approach to reporting. The report was commensurate with GRI application level B.

### 2009

Kingspan Insulation Ltd. decided to cease the use of the Arup SPeAR® tool to review and measure its sustainability and responsibility performance. Instead, it decided to focus on the use of GRI reporting guidelines, and went a step further by undergoing an external assurance process, to ensure the accuracy and robustness of the GRI indicator data upon which this report is based. As a result, the 2009 report was commensurate with GRI application level B+.

### 2010

The company's reporting framework remained the same as in 2009, though some minor improvement suggestions, made during the 2009 external assurance process, were adopted.

Kingspan Insulation obtained a certified Life Cycle Assessment, from the Building Research Establishment (BRE), for its Kooltherm® and KoolDuct® product ranges, for the first time.


### 2011

Kingspan Insulation's reporting framework remains the same as in 2010, though a small number of additional metrics have been adopted. The company's certified Life Cycle Assessments for the Therma range were extended to include those products manufactured at the company's Selby site.



## Current Reporting Procedure

This review of Kingspan Insulation Ltd.'s sustainability and responsibility, for the calendar year 2011, has followed the same approach as last year's. It once again incorporates data and disclosures covering the GRI G3 reporting requirements. This year's report achieves a level commensurate with GRI application level B+ (see Appendix A for further explanation). This requires reporting on a minimum of 20 performance indicators across the spectrum of environmental, economic, social and product-related categories, and external assurance. A full register of performance indicators reported, and an explanation of the external assurance process is available in Appendix B.

	2002 In Accordance	C	C+	B	B+	A	A+
Mandatory	Self Declared						
Optional	Third Party Checked		Report Externally Assured		Report Externally Assured 		Report Externally Assured
	GRI Checked						

### GRI Application Level

The data presented in this report have been drawn from Kingspan Insulation Ltd.'s comprehensive internal management systems, which cover Environmental; Quality; and Health and Safety management. Further data have been gathered from Kingspan Insulation Ltd.'s Financial Statements and through discussion with key staff members. Data have been normalised for comparability across a number of years, especially given variations in the size of the estate, volumes of production, and in staff numbers. Methods of normalisation are identifiable in the presentation of the data. In addition, where issues of confidentiality arise, data have been subject to controlled release (as noted throughout the report).

Report content has been defined based on a comprehensive coverage of key sustainability topics. The company's understanding of sustainability and key impact areas is shaped by experience of the SPeAR® framework, and the material issues for reporting have been selected based on the topics identified therein.

Kingspan Insulation Ltd. values the feedback of stakeholders. Care has been taken to report on issues arising through engagement and consultation with customers; communities; suppliers; and external bodies (trade associations and government), to ensure that this report covers all areas considered material to the business.

This report has undergone a process of formal external assurance, carried out by Caleb Management Services Ltd. In Caleb's opinion this Sustainability & Responsibility Report provides a reasonable and balanced presentation of performance, taking into account the data provided as well as the overall selection of content. Based on its review, Caleb concludes that this report meets the GRI requirements at the B+ application level. A copy of Caleb's external assurance report is available at:

[www.kingspaninsulation.co.uk/sustainabilityandresponsibility](http://www.kingspaninsulation.co.uk/sustainabilityandresponsibility).

Kingspan Insulation Ltd. actively encourages stakeholders to engage with this report, and looks forward to receiving comment and feedback to help strengthen the approach to reporting in future years. Any questions should be directed to the Marketing Department, contactable at [info@kingspaninsulation.co.uk](mailto:info@kingspaninsulation.co.uk).

Electronic copies of this (and previous) Sustainability and Responsibility Reports can be downloaded at:  
[www.kingspaninsulation.co.uk/sustainabilityandresponsibility](http://www.kingspaninsulation.co.uk/sustainabilityandresponsibility).

## Current Report Structure

The upcoming sections present Kingspan Insulation's sustainability and responsibility performance divided into 14 key themes:

- economic viability;
- stakeholder engagement;
- employment & skills;
- health & wellbeing;
- responsible business;
- product design & material inputs;
- raw material use & manufacturing efficiency;
- water management;
- water consumption & disposal;
- energy & greenhouse gas emissions;
- transport;
- social and community initiatives;
- biodiversity & natural heritage; and
- land management & premises.

This structure is considered to deliver a comprehensive impression of sustainability and responsibility issues at Kingspan Insulation Ltd.

Each chapter is divided into five sub-sections:

- context, defining the background to the theme and outlining the management approach adopted by Kingspan Insulation;
- historical achievements and ongoing activities, summarising the key actions undertaken by the company to date in relation to the headline theme;
- performance highlights, summarising the progress made by Kingspan Insulation Ltd. during the reporting period;
- GRI performance data, displaying graphs and tables in relation to each of the reported GRI performance indicators. The indicators included in each chapter are outlined in a set of indicator boxes shown beside the text; and
- action plans, providing an updated schedule of work to be undertaken.

Performance improvement targets have also been defined for those areas which lend themselves to quantitative metrics.

# 2011 Highlights & 2012 Key Targets

## 2011 Highlights

**A continued focus on sustainability performance throughout 2011 has ensured that Kingspan Insulation continues to progress, most notably in the areas of raw material conversion efficiency and waste reduction. The following summarises the key performance highlights for 2011.**

### Economic Viability

Despite a lack of sustained recovery in the UK construction industry, Kingspan Insulation has managed to improve its top and bottom lines because of a close attention to adding value and maximising efficiency. This has been assisted by:

- an increase in the solid wall refurbishment market, for which Kingspan has tailor made products; and
- the acquisition, by Kingspan Group, of a range of insulation manufacturing businesses, from CRH, which has led to increased manufacturing volumes and economies of scale due to improved access to new markets.

### Product Design & Material Inputs

Kingspan Insulation has, over the past decade, been at the forefront of disclosing LCA data using the BRE environmental profiling methodology. During 2011, almost all products manufactured at the Selby site also gained a certified BRE Green Guide Summary Rating. All Pembridge and Selby products that have been profiled hold a certified BRE 2008 Green Guide Summary Rating of A+ or A. During the year, both Selby and Pembridge also gained PEFC and FSC Chain of Custody certification.

### Raw Material & Manufacturing Efficiency

The company's Six Sigma / Lean team has continued to focus on improving resource efficiency across the operation. The introduction of statistical process control (SPC) at Pembridge and Selby has enabled manufacturing faults to be identified in real time, improving process efficiency. The introduction of supervisory control and data acquisition (SCADA) has improved process efficiency by measuring temperatures, speeds and pressure. A performance cockpit tool has been developed to monitor trends and benchmark performance at each site.

### Waste Management

The company's Site Waste Take-Back scheme grew significantly during the year and has become a key differentiator for the business. During the year, Kingspan won two industry awards for the scheme, one at the Excellence in Recycling and Waste Management Awards and one at the National Insulation Association Awards. Kingspan Insulation has been working to regain lost ground in finding acceptable destinations for its manufacturing waste and Site Waste Take-Back. During 2011, it re-opened one waste destination that had closed off during 2010 and also opened up a new alternative non-landfill disposal route. As a result, 70.6% of all manufacturing waste by weight avoided landfill during 2011, up from 39.5% in 2010. All Site Waste Take-Back is disposed of through non-landfill routes.

### Energy and Greenhouse Gas Emissions

Energy is one of Kingspan Insulation's main overheads. It already has a gas fired CHP plant on site at Pembridge, which has reduced energy use and carbon dioxide emissions. In 2011, Kingspan Group introduced a target to achieve Zero Net Energy by 2020. As an interim step, each Division of the Group must achieve a minimum of 8% energy consumption reduction and replace 50% of all grid based energy with self generated renewable energy by 2015. As part of the Zero Net Energy Target Kingspan Insulation has installed one of the largest photovoltaic (PV) arrays in the UK on the roof of the Pembridge manufacturing facility. 5,583 m<sup>2</sup> of roof space is now covered by a PV system with a design capacity of 800kW, providing approximately 10% of the site's electricity demand.



The market for solid wall refurbishment is one of the growth sectors of the construction economy. Products such as Kingspan Kooltherm® K18 Insulated Plasterboard are tailor made for this application.



The Kingspan TEK Building System uses structural insulated panels that hitherto have been manufactured near Berlin and shipped to the UK. This manufacturing process is to be moved to Selby during 2012.

## 2012 Key Targets

**The following summarises the key targets for 2012. Kingspan Insulation hopes to make further progress, most notably in the areas of stakeholder (including community) engagement and waste management.**

### **Economic Viability**

During 2012, the company plans to relocate the manufacturing of the structural insulated panels that are the basis of the Kingspan TEK Building System, from Germany to Selby, in order to manufacture products closer to their market. This will reduce transport costs and improve delivery flexibility.

At the same time, Kingspan plans to launch its next generation insulation (NGI) product on to the market and leverage further the acquisition of a range of insulation manufacturing businesses from CRH.

### **Stakeholder Engagement**

Kingspan Insulation plans to undertake a more robust process of stakeholder engagement. It will consult with customers and employees, to identify their expectations, and issues that are considered material, with regards to sustainability issues. The results will be used to strengthen the company's approach to GRI reporting.

### **Waste Management**

Kingspan Insulation aims to grow its Site Waste Take-Back scheme significantly during the year. It is seen as being particularly important in the solid wall refurbishment market, which is expected to continue to grow during 2012 and beyond. The company aims to fulfil its target of 95% by weight of waste leaving the manufacturing sites to be destined for non-landfill disposal routes.

### **Energy and Greenhouse Gas Emissions**

As a response to the Kingspan Group Zero Net Energy Target the company intends to start to make plans for low / zero carbon energy generation at its sites and for dramatic energy use reductions.

### **Social and Community Initiatives**

As well as consulting with employees and customers, Kingspan Insulation plans to repeat its biannual consultation exercise with its local community around the Pembridge site. The company will also specifically consult with the local community over its plans for low / zero carbon energy generation at its sites.

The Kingspan Insulation Community Trust has been a huge success since it was founded in 2006. It currently gives grants to projects in a fairly narrow geographical area around the Pembridge and Selby sites. However, it has been noticed that the requests for grants have slowed down, and so the Trustees of the Trust have decided that the area that the Trust covers will be widened markedly for applications in 2012. It is hoped that this will increase the competition for grants from the Trust.



# Economic Viability

## Context

**Global pressures on energy consumption, due mainly to the increasing scarcity of natural resources and the climate change impacts of traditional fossil fuel-based energy generation, have elevated the objective of energy efficiency within the scientific and legislative agenda. In their report Existing Homes and Climate Change (April 2008), the Government's Communities and Local Government Committee (CLGC) point to the UK's building stock as being responsible for around a quarter of all carbon emissions in the UK. 75% of those emissions come from three sources: heating; hot water; and lighting.**

**Through its innovative insulation solutions, Kingspan Insulation makes vital contributions to improve the energy efficiency of buildings, by reducing heat loss from the building envelope and thereby reducing the energy required for heating. As momentum gathers for energy efficient building, Kingspan Insulation finds itself operating within an economically viable and desirable market.**

**The company operates on a five-year business planning schedule, enabling emerging challenges to be managed on a relatively short timescale as required for business success. Owing to these short horizons, the impacts of climate change for the organisation have not yet been factored into the business plan.**

## Relevant GRI Indicators

<b>EC1</b>	<b>Direct economic value generated &amp; distributed.</b>
<b>EC2</b>	<b>Financial implications and other risks and opportunities for the organisation's activities due to climate change.</b>
<b>EN28</b>	<b>Monetary value of significant fines for non-compliance with environmental laws &amp; regulations.</b>
<b>SO2</b>	<b>Percentage &amp; total number of business units analysed for risks related to corruption.</b>
<b>SO7</b>	<b>Total number of legal actions for anti-competitive behaviour, anti-trust, &amp; monopoly practices &amp; their outcomes.</b>
<b>SO8</b>	<b>Monetary value of significant fines for non-compliance with laws &amp; regulations.</b>

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

- Pro-active engagement with, and response to, progressively more stringent Government legislation around building energy performance.
- Ongoing research and development have provided innovative and sustainable insulation solutions, which have contributed to the diversification of the market and helped to drive greater sustainability across the sector.
- Annual risk assessment covering all business areas and analysing risks related to a broad range of factors, including financial; legal and regulatory; operational; research and development and quality control; purchasing; sales; and reputation. Corruption and fraud are also covered as important risk factors. The assessment takes into account the probability that each identified risk will occur, in order to prioritise areas for management and control.
- Disaster recovery plans and fire emergency action plans are in place.
- Provision is made for warranties, bad debts, and for potential environmental liability.
- The Pembridge site is a major employer for local people and provides a marginal benefit to the local rural economy.
- The significance of the Selby site is less pronounced as its location is less isolated.
- All vehicles are leased, including forklifts, trucks and company cars. The Marketing department outsources its requirements for design, print and public relations. Photocopiers and coffee machines are also leased.
- A bespoke set of sustainability key performance indicators (KPIs) are used to monitor sustainability performance throughout the year. The KPIs are included in Kingspan Insulation Ltd.'s performance management framework.
- The sustainability agenda continues to be an important part of Kingspan Insulation's business, with sustainability objectives and targets integrated into strategic & business planning, and a focus on energy management, material efficiency and waste reduction.
- A corporate governance structure conforming with the OECD principles of Corporate Guidance is in place.
- SAP is in operation at both UK sites. The benefits of installing SAP have materialised in accounting, purchasing, stock control and delivery functions.

## 2011 Performance Highlights

In spite of the challenges of the economy during the reporting year 2011, Kingspan Insulation has maintained market position with a significant increase in profitability relative to 2010.

Kingspan Insulation's regulatory performance remains strong. As in the previous year, no fines or non-monetary sanctions were recorded for failure to comply with laws and regulations, environmental or otherwise. No legal actions have been taken against Kingspan Insulation for anti-competitive behaviour, anti-trust, or monopoly practices since at least 2006.

During 2011, investment in research and development activity was approximately £800,000.

The focus of the majority of this research is to produce an improved process or product, including by mitigating the environmental impacts of product groups through their whole life cycle, and achieving cost savings for the company.

2011 saw continued significant investment in research and development to support the introduction of a next generation insulation (NGI) material. This investment is designed to reduce non-renewable raw material consumption for the same insulation performance.

Both Pembridge and Selby sites continue to make a valuable contribution to their respective local economies, employing approximately 340 and 50 employees respectively, and supporting local businesses where possible, through procurement of local goods and services.

The Selby site has continued to grow, achieving solid increase in output year on year. The Selby operation commenced the production of kits using the Kingspan TEK Building System, which features Structurally Insulated Panels (SIPs) manufactured in Germany. This has created additional employment, benefiting the local economy.

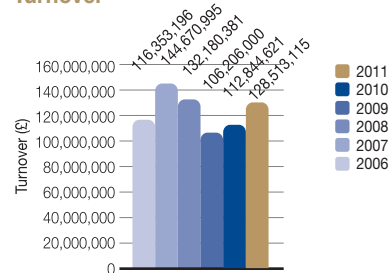
The acquisition, by Kingspan Group, of a range of insulation manufacturing businesses, from CRH, has led to increased manufacturing volumes and economies of scale due to improved access to new markets.

An internet sales platform was launched during the year, at [www.kingspandirect.com](http://www.kingspandirect.com), as a response to the growing concentration of the insulation distribution market.

Kingspan Insulation has launched Kooltherm Cavity Closer, a new product which provides continuous insulation across wall cavities.

## GRI Indicator Data

### Turnover



The downturn in the UK economy continued for most of 2011, which led to the continuation of some of the most difficult trading conditions in the construction industry for many years. Turnover in 2011, although significantly up on 2010, has still not recovered to pre-downturn levels.

The full Financial Statements of Kingspan Insulation Ltd. for the financial year 2011 are publicly available from Companies House.

## Action Plan

- The process of ensuring that sustainability thinking is embedded within the organisation is ongoing. Kingspan Insulation aims to continuously improve its approach.
- Undertake an assessment of future climate change risks for both facilities, e.g. managing weather extremes, flood risks, high temperatures, water resources, energy security.
- Move structural insulation panel manufacturing to the Selby site in order to manufacture products closer to their market.
- Take full advantage of the efficiencies that can be leveraged from the acquisition of the UK PIR manufacturing assets of CRH.
- Launch the next generation insulation (NGI) product and install its manufacturing plant.



Shobdon Youth Club has benefitted from funding provided by the Kingspan Insulation Community Trust.

Sarah Fenlon a volunteer for the Youth Club commented "Having opened using £180 raised from a Bingo night, we were in dire need of some equipment to keep the youngsters entertained, so we decided to apply to the Kingspan Insulation Community Trust for some funding."

"We asked the children what type of equipment they would be interested in and they put forward a whole list including skateboards, ramps, helmets and pads, as well as indoor football nets, table tennis and space markers."

"Because the children chose the equipment themselves, it has proved to be a worthwhile investment as it is something they wanted to participate in rather than being pushed towards a particular activity chosen for them. We are extremely grateful to the Trust for the funding as, without it, the purchase of the equipment would simply not have been possible."

# Stakeholder Engagement

## Context

**Kingspan Insulation Ltd. actively engages staff, customers and local communities in consultation in order to identify material issues for attention or management. These three groups are considered the most valuable stakeholders impacting on, and impacted by, the business, and their views are sought to reduce business risks and understand customer needs. Kingspan Insulation Ltd. also cultivates close working relationships with statutory authorities to achieve compliance with all regulatory and legal requirements. Please also refer to the section of this document titled "Social & Community Initiatives".**

## Relevant GRI Indicators

### **PR5 Practices related to customer satisfaction.**

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### External Organisations

- Close relationships forged with national and international trade associations including PU Europe – the European Trade Association for Polyurethane (PUR) and Polyisocyanurate (PIR), the European Phenolic Foam Association, the British Rigid Urethane Foam Manufacturers' Association (BRUFMA), and the Construction Product Association's (CPA).
- Kingspan Insulation Ltd. takes an active role in consultations for the approval of amendments to the Building Regulations, plus other Regulations and legislation, e.g. the Carbon Reduction Commitment. It also provided two secondees to the Construction Products Association to assist in the creation of the Green Deal: a flagship UK Government initiative to refurbish the UK's stock of solid walled housing.
- Kingspan Insulation Ltd. also takes an active role in consultations on industry initiatives such as BREEAM, the Code for Sustainable Homes and BES 6001: Framework Standard for the Responsible Sourcing of Construction Products.
- Annual Financial Statements are released and made publicly available via Companies House and the Kingspan Group annual report.

### Employees

- Employee surveys have been undertaken, covering issues such as building comfort, training programmes and employee satisfaction.
- An Employee Suggestion Scheme was trialled but had a poor response rate. Employee engagement on issues such as product innovation and lean manufacturing are instead sought through competitions or one to one appraisals.
- A Works Committee is in operation, and staff are represented by a Trade Union.
- Health and safety, housekeeping and production statistics are communicated to shop floor staff via notice boards, in order to involve employees in improving team performance.
- A central point of contact has been put in place for employees within HR, along with a more robust complaints system.
- Relevant data is communicated to staff via notice boards to ensure knowledge of company performance and trends.
- A newsletter is produced at the Selby site which includes coverage of sustainability issues relevant to staff.

### Suppliers

- Supplier surveys and reviews are conducted with individual suppliers as issues arise. A Quality Assessment Questionnaire is sent to suppliers on a three-yearly basis.
- A Supplier 'Sustainability' consultation and feedback exercise has identified that Kingspan Insulation's suppliers are largely disinterested in the Company's sustainability reporting. There is no plan to repeat this consultation in the immediate future.

### Customers

- Customer satisfaction metrics are employed to drive business performance. The Customer Satisfaction team monitors and records Kingspan Insulation Ltd.'s On-Time / In-Full (OTIF) performance. Results are reported to senior management.
- Frequent and proactive consultation is undertaken with customers, aiming to deal with issues as they arise.
- Regular telephone surveys focus on packaging quality; logistics performance; technical services; and customer support.
- One-to-one service review meetings are undertaken with key customers on a monthly basis (fortnightly for new customers).
- All calls received from customers are monitored and logged within a complaints database, along with details of responses made to the customer. Feedback is provided to the complainant regarding corrective actions taken.
- Complaints are monitored by product type and problem type, to identify trends and ensure that complaints reduce.
- In-depth surveys are undertaken intermittently, such as the 2006 End User survey, which targeted the end users of products rather than the intermediate customer, and the comprehensive Packaging Survey which was undertaken in 2007.
- Significant improvements in customer service have been seen year-on-year since 2005.
- Since 2009 a Customer Service Charter has been provided to all customers as part of an Introduction to Kingspan Insulation Ltd. pack. The Charter is actively promoted as integral to securing new business and strengthening existing customer relationships.
- Service-level agreements were instituted in 2008 as a feature of all customer relationships to manage expectations.



## 2011 Performance Highlights

Kingspan Insulation Ltd. continues to publicly report on its annual sustainability and responsibility performance, this report is for 2011. The report has been prepared using the feedback of employees, the local community, customers and suppliers to ensure the coverage of all material issues. GRI reporting indicators have been imbedded into the reporting methodology in key areas.

Kingspan Group has started reporting of greenhouse gas emissions through the Carbon Reduction Commitment. The biannual customer survey was carried out to measure customer perceptions of Kingspan's service levels. Overall, Kingspan's service is highly rated by the majority of customers with improvements noted when compared with the results of the previous survey in 2009.

An Employee Opinion Survey was conducted in 2011 with manufacturing staff at Pembridge and Selby. As a result of the survey, Kingspan Insulation has created a new Employee Forum to improve staff engagement across operations.



## Action Plan

- Undertake customer 'Sustainability' consultation and feedback exercise to identify expectations and important issues and repeat biannually.
- Undertake staff 'Sustainability' consultation feedback exercise to identify expectations and important issues and repeat biannually.
- Use occupant feedback to proactively inform the design of new buildings or refurbishment of existing buildings.
- Consider implementing a proactive system to measure supplier satisfaction as part of quality management.
- Strengthen approach to GRI reporting by undertaking a more robust process of stakeholder engagement to identify material issues pertinent to Kingspan Insulation Ltd.
- Work towards expanding the range of GRI performance indicators reported, with the aim to achieve an A-rated report by 2015.
- Work towards embedding sustainability reporting (including reporting on GRI performance indicators) within the Kingspan Group annual report.
- Reintroduce the staff newsletter at Pembridge.



The young members of Sherburn Scout Group have been using their new camping equipment to get active in the great outdoors with the help of a grant from the Kingspan Insulation Community Trust.

The group which has been running for over 50 years currently has more than 80 members aged between six and fourteen in their Cub, Beaver and Scout sections. Following an application to the Kingspan Insulation Community Trust they received just over £3000 to help replace their old camping equipment with 6 new tents, a mess tent for cooking and other camping equipment.

Getting outdoors is an important part of scouting and the equipment will be used as part of the scouts "balance program" which helps young people to find out more about the world we live in and promotes physical fitness through a variety of activities, from developing survival skills to abseiling and canoeing.

Sherburn Scout Group Leader Steve Proberts said "We were delighted to receive the funding from the Community Trust, and we've already used the new equipment for a county camp with other cub and scout groups in July. The new equipment proved vital as the event was wet and windy and the old equipment wasn't watertight".

# Employment and Skills

## Context

**The company values its staff and strives to provide excellent working conditions and career development prospects for all. Annual investments are made in staff training and development to ensure individuals' continual learning and diversification of skills. Kingspan Insulation recognises its influence in local employment markets and seeks to bolster the economic welfare of surrounding communities through the recruitment of local people.**

## Relevant GRI Indicators

**LA1 Total workforce by employment type, employment contract and region.**

**LA2 Total number & rate of employee turnover by age group, gender & region.**

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Scale & Type of Employment

- Kingspan Insulation Ltd. is a major employer in the area surrounding the Pembridge site.
- A range of employment types are offered at Pembridge, including office-based disciplines such as finance, marketing, and customer services, as well as maintenance, engineering and manufacturing roles.
- The Selby facility is much smaller than Pembridge and the majority of its approx. 50 employees work in production.

### Recruitment & Retention

- As far as possible, Kingspan Insulation Ltd. recruits its staff from the local area through advertisements in local media and use of local job centres or Manpower offices.
- Each year, Kingspan Insulation Ltd. recruits an apprentice to the Pembridge site from a local technical college.
- Like many other companies Kingspan put its Graduate Recruitment Programme on hold during the recession. The company fully intends to restart it as the economy recovers. Training and development of existing graduate employees continues.
- Kingspan Insulation Ltd.'s commitment to sustainability is promoted to job applicants.
- In 2009 a new web page was introduced to the Kingspan Insulation Ltd. website featuring the Sustainability & Responsibility Report. This has been very successful at highlighting the depth and breadth of the company's commitments to sustainability not only to customers of Kingspan Insulation Ltd., but also to many current and potential employees.
- A formal one-day induction process is undertaken with shop floor staff, which includes environmental management training.

### Equality

- An Equal Opportunities Policy and an Anti-Discrimination Policy have been implemented.
- Middle management includes female employees, although there are none at senior management (Director) level.
- At Pembridge, some staff are employed on part-time contracts, generally in response to lifestyle needs. At Selby, all staff are full-time.
- The Pembridge site is compliant with the Disability Discrimination Act 1995.
- Provision is in place to ensure inclusion of physically impaired employees.
- The workforce represents the social demographics of the local areas.
- Hourly paid employees' wages are benchmarked against local area averages, to help ensure low employee turnover.

### Training & Development

- Kingspan Insulation Ltd. has Investor in People (IiP) status.
- The company's performance management framework provides staff with a structured approach to training and personal development, and ensures that all staff understand the opportunities available. It was introduced as a result of the IiP review process. Following its introduction, around 80% of staff now receive an annual appraisal.
- A comprehensive training programme is available to all staff, including shop-floor. Training programmes feature succession planning, time management, team building (including bush craft skills), first aid, and report-writing amongst others.
- External courses are approved where deemed important to career success: e.g. members of the Accounts team attend Association of Accounting Technicians' (AAT) courses, whilst those in Marketing may follow the Chartered Institute of Marketing (CIM) programme.
- There is structured career path training for some departments, with a policy for promotion.
- Proactive training plans are in place for all shop floor staff.

## 2011 Performance Highlights

At the close of 2011, Kingspan Insulation Ltd. employed 385 staff across its two sites, with approximately 340 at Pembridge and 50 at Selby. Kingspan Insulation Ltd.'s Investor in People status was again reaffirmed in 2011.

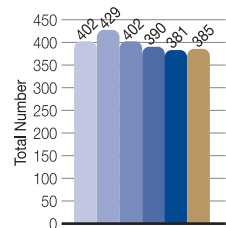
During 2011, in-house training was provided for 368 employees at Pembridge and at Selby. 10% of the workforce completed an external training course. Business coaching workshops were also delivered at Pembridge.

Kingspan Insulation Ltd has devised a new appraisal system and conducted appraisals across logistics, production and supervision teams. The company completed training on the new appraisal system to all supervisory staff.

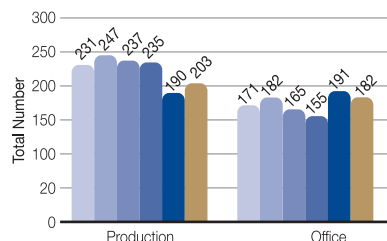
The company's Graduate Recruitment Programme restarted and 2 graduates joined the business.

## GRI Indicator Data

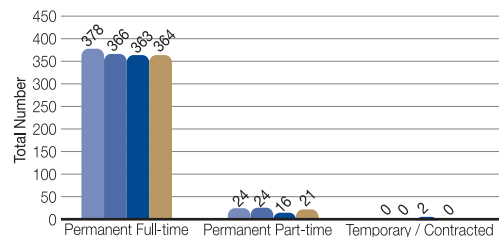
**Total Number of Employees at End of Calendar Year**



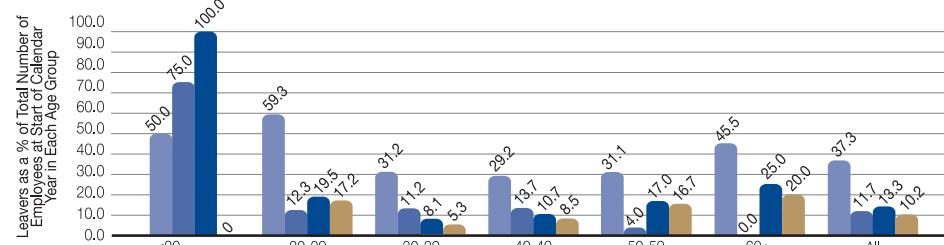
**Total Number of Employees by Employment Type at End of Calendar Year**



**Total Number of Employees by Contract Type at End of Calendar Year**

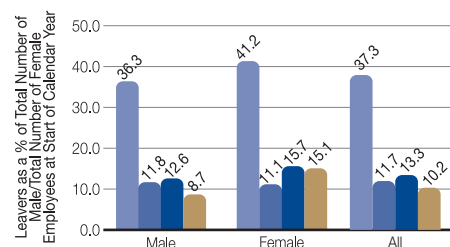


**Employee Turnover by Age Group**

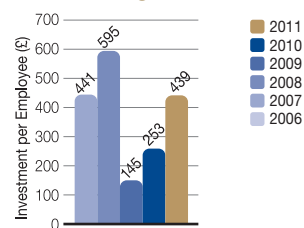


Employee turnover dipped significantly in 2009 compared with preceding years. This was most likely caused by a combination of factors. Firstly, despite the tough economic climate, there were only 6 redundancies within the 2009 reporting period. Secondly, the impact of the recession on the UK economy discouraged people from leaving their jobs to seek employment elsewhere. In 2010, turnover remained low for similar reasons, particularly in the age bracket that makes up two thirds of the working population at Kingspan i.e. 30-49. It remained so in 2011.

**Employee Turnover by Gender**



**Investment in Staff Training**



The reduction in investment in staff training in 2009 was an inevitable consequence of the recession in the construction industry. Prior commitments to staff training and all essential training programs continued as normal.

In 2010, investment in training started to recover and by 2011 it was back to pre-recession levels.

## Action Plan

- Work has been undertaken to improve disabled access at the Selby site and the Pembrige site is DDA compliant. However, further work is still required across the site to ensure the site is compliant with the Equality Act 2010.
- Introduce environmental awareness refresher training for all staff at appropriate intervals.
- Invite specialists from external organisations to hold lunchtime talks / awareness events to engage staff in sustainability issues.
- Improve rate of annual staff appraisal. While improvements have been made in this area, Kingspan Insulated Ltd. still aims for 100% of staff to receive at least one appraisal per year to facilitate staff development.
- Develop a formal and consistent approach to measure the value of training provided to staff, as also identified by Investors in People 2009 review.



# Health & Wellbeing

## Context

**Kingspan Insulation Ltd. has a strong reputation for health and safety in the workplace and takes seriously its responsibility for staff welfare. liP reviews have noted the company's approach to occupational health and wellbeing as a particular strength, and investments continue to be made to ensure these high standards are maintained. Provision of a high quality working environment is viewed as fundamental to maintaining healthy and motivated staff, and to retaining staff for the long-term.**

## Relevant GRI Indicators

**LA7 Rates of injury, occupational diseases, lost days, & absenteeism, & total number of work-related fatalities by region.**

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Health & Safety Management

- A Health and Safety Management System is in operation, which has been certified to OHSAS 18001 at the Pembridge site since 2005 and the Selby site since 2009.
- Accident reporting is in accordance with OHSAS 18001 guidance. All work-related injuries are recorded. A detailed log of each event is maintained, and accidents are followed up by a full risk assessment and corrective action. The welfare of affected staff is monitored.
- "Near miss" events and safety concerns are reported to ensure that action is taken to avoid any potential for future injury. This proactive management of accidents has substantially reduced the occurrence of actual injuries at the site (see figures to the right).
- Q-Pulse, new H&S and occupational disease trend monitoring software, has been introduced at both sites.
- No fatalities have been recorded in the company's history.
- A visitor health & safety procedure has been implemented along IHSEP 028 guidelines.
- Safe & efficient fork lift truck operation training and incentives have been introduced at Selby.
- A Pedestrian Scale Policy is in place at Pembridge including demarcated pedestrian pathways and crossings.
- HSE alerts are used to benchmark the rate of injury and sickness with wider industry performance, in order to set targets.

### Employee Health & Wellbeing

- A Human Rights Policy, a Handling Stress at Work Policy and a Discrimination & Bullying Policy have been implemented.
- Annual health assessments are provided for all, plus a pre-employment check for new employees and periodic health assessments relevant to job function, with the opportunity to upgrade to a more extensive assessment at a subsidised cost.
- Occupational diseases are monitored in an Occupational Health Monitoring Programme.
- The health benefits of cycling to work have been promoted to employees.
- Free PSA tests are made available to all male employees over 40 on a regular cycle.
- A company doctor and occupational health practitioner are on hand to support the physical health of staff at both sites.

### Employee Benefits

- A money purchase pension scheme is available to all staff, matched by the company at a rate of 5%, and a profit share is provided.
- Discounted membership of a local leisure centre has been arranged for all employees.
- A Cycle to Work Scheme was provided to all employees for the first time in 2009. This enables the purchase of tax deductible cycles.
- Childcare vouchers and an Employee Assistance Programme are available to all employees.

### Employee Facilities

- A manned staff cafeteria is in place at the Pembridge site, which provides a range of healthy meal options.
- Showers, lockers and kitchen facilities are provided to shop floor staff at both sites.
- There is minimal green space on-site at Pembridge due to former industrial land uses. At Selby there is a large area of grassland. Staff at both sites have access to any available green spaces, and indoor / outdoor breakout spaces are available at both sites.

### Working Environment

- The working environment of the shop floor has been substantially improved since 2004 and now demonstrates exemplary practice.
- Almost all sources of dust have dust extraction at source and production areas are subject to a weekly housekeeping and inspection regime. Indoor air quality and plant extraction are regularly monitored, and this confirms very low levels of dust.
- An air cooling system has been installed to improve comfort for employees on the shop floor.
- Offices use a mixture of mechanical ventilation and air conditioning and most have opening external windows.

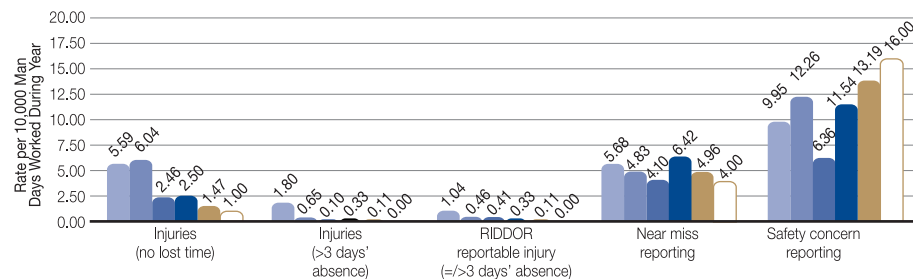
## 2011 Performance Highlights

It becomes harder to find safety concerns to report on as time goes on. The reduction in safety concerns together with the reduction in near misses and accidents demonstrates that the safety of the working environment continues to improve.

A cycle to work scheme was provided again at Pembridge, and launched for the first time at Selby. The programme has been successful with a number of employees purchasing bicycles through the scheme. Free PSA testing was provided again during 2011.

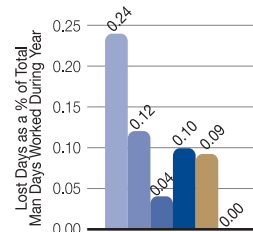
## GRI Indicator Data

### Rate of Injury and Accidents Avoided

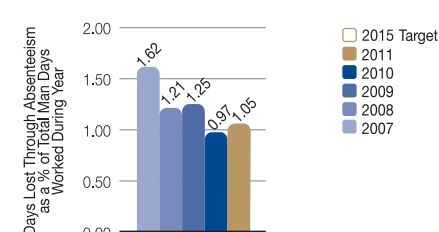


The high level of safety concern reporting reflects a working environment that has become safer in recent years, this is also shown in a general reduction in injuries.

### Days Lost Due to Accidents



### Absenteeism Rate



Accidents and absenteeism rates at Kingspan Insulation Ltd. remain the best in the Kingspan Group plc and are significantly better than the national average.

## Action Plan

- Ensure that the benefits of healthy eating are publicised.
- Explore & program initiatives to involve staff in on-site conservation / landscaping work, both to raise awareness of biodiversity objectives & as a health & wellbeing / staff engagement initiative.



Pupils at Wigmore School have been busy practicing their scrummaging skills thanks to the purchase of a new scrummaging machine with funding provided by the Kingspan Insulation Community Trust.

A spokesperson for Wigmore said "In Years 10 and 11 pupils are becoming young adults and the game of rugby becomes more physically demanding. We felt that the knowledge and understanding of the safety aspects of fundamental skills such as tackling, ruck and maul situations, the lineout and the scrum is paramount."

"The scrum can be a difficult concept to teach during lessons, and we felt that a scrummaging machine would benefit the pupils both in and out of school hours; giving them the confidence to learn safe and effective scrummaging technique during lesson times and also understanding how effective scrums can benefit our extra-curricular teams, making them more competitive in different game based scenarios."

The Kingspan Insulation Community Trust provided Wigmore School with £1,200 to purchase the scrummaging machine.

# Responsible Business

## Context

**Kingspan Insulation is committed to conducting its business in an ethical, transparent and responsible manner, both through internal operations and external relationships with the supply chain and other stakeholders. The company endeavours to use local suppliers, contractors and materials wherever possible, although this is limited by the specific raw materials required for products, especially for chemicals. When appropriate local suppliers, contractors or materials are unavailable, the company is committed to using fair trade or otherwise responsibly sourced goods and services wherever possible.**

## Relevant GRI Indicators

**HR1 Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.**

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Awards

- Kingspan insulation Ltd. has been the proud recipient of the following awards:
  - The Sustain Magazine Business & Society Award for Governance (2010)
  - The Herefordshire & Worcestershire Chamber of Commerce Environmental Award: Herefordshire (2010)
  - The Sustain Magazine Property and Built Environment Award for Refurbishment (2009);
  - The Herefordshire & Worcestershire Chamber of Commerce Business of the Year Award (2008); and
  - The Herefordshire & Worcestershire Chamber of Commerce Business Commitment in the Community Award (2007).
- In 2009, Kingspan Insulation Ltd. was also listed in the Construction Products Association (CPA) Innovation and Achievement Showcase, for the ground breaking refurbishment of a Victorian solid walled property in Camden.

### Policies

- A detailed Ethical Purchasing Policy and a Local Supply Policy have been implemented.
- Kingspan Insulation Ltd. operates a Payment Policy and has a good reputation for prompt payment.
- A Whistleblower Policy and a Code of Conduct have been implemented and an external whistleblowing helpline is available.

### Supply Chain & Procurement

- The purchasing department maintains a list of approved suppliers of the company's main raw materials. Criteria for supplier approval include certification to ISO 9001, evidence of robust Environmental Management and Health and Safety Management Systems, and strong corporate responsibility commitments.
- Kingspan engages with key first tier materials suppliers to raise awareness of sustainability issues down the supply chain and to encourage high standards of environmental, quality, and health and safety performance.
- Following concerted pressure from Kingspan Insulation, in 2009 the last of the manufacturing facilities, that supply the principle polymer components for the Kooltherm® and Therma™ ranges, achieved certification to ISO 14001 for its Environmental Management System.
- Purchasing decisions are made on the basis of whole life costing.
- The company purchases the majority of its raw materials from the EU or OECD, which are assumed to be low risk in relation to Human Rights violations.
- The company has switched to fair trade tea and coffee for staff kitchens and vending machines.
- Small and Medium Sized Enterprises (SMEs) are included in the supplier list. Collaborative research is undertaken with innovative SMEs around the UK.
- Kingspan Insulation Ltd. engages local suppliers, notably for haulage, fork lift truck lease and maintenance, and procurement of pallets for packaging.
- Five food suppliers are engaged at the Pembridge site, which are located locally in Shobdon, Hereford and Ludlow.
- Key services are also contracted to small local suppliers. For example, Leeds based SME suppliers used at the Selby site include Dalesman Fabrications Ltd who provide Metal Fabrications, JP plant hire who lease plant and Aquaven who provide filtered water.
- Customer gifts, e.g. hampers, are locally sourced around Pembridge and, where possible, organic.

### Investment

- Historically, the company has sought to invest at least 10% of capital expenditure in improvements to its environmental and social performance.



## 2011 Performance Highlights

Despite continued challenges in the marketplace during 2011, caused by the recession in the UK economy, expenditure on environmental and social performance has increased in comparison with 2010.

Kingspan Insulation Ltd. has been the proud recipient of the following awards for the Site Waste Take-Back Scheme:

- The Excellence in Recycling and Waste Management Award for the best Waste Management Initiative in the Commercial and Public Sector (2011)
- The National Insulation Association Award for the Environmental Initiative of the Year (2011)

In 2011, over 58% of the company's capital expenditure was on projects designed to improve environmental and/or social performance. Most notable are initiatives in the waste and energy management area.

Kingspan Insulation is working towards BES 6001 certification process, collating information on its supply chain's conformance with ISO 9001, ISO 14001 and OHSAS 18001 or equivalent.

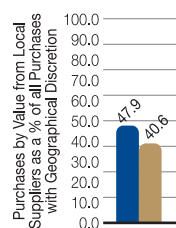
All Managers & Directors within UK have received training on the Bribery Act 2010 and all Directors have received refresher training on the Companies Act 2006. A risk mentor is now available to the company.

## Action Plan

- Increase use of locally sourced materials wherever possible (i.e. local to Selby and Pembroke respectively).
- Achieve certification to BRE BES 6001, for both sites and all product lines.

## GRI Indicator Data

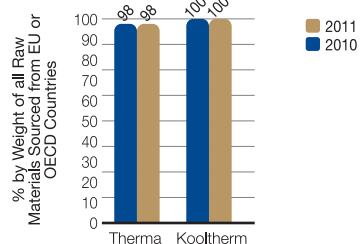
### Local Sourcing



For the purposes of this metric, local is defined as being within a 1 hour drive of either the Pembroke or Selby sites. The raw materials used to make Kingspan's products are not included in this metric, because no local sources of supply are available. Packaging and all other purchases are included.

In addition, the company leases its cars from a non-local leasing company, however, although for that reason it is not reflected in the new metric, over 50% of the cars it leases are physically supplied by car dealerships local to the Pembroke site.

### Human Rights



2011 Excellence in Recycling and Waste Management Award for the best Waste Management Initiative in the Commercial and Public Sector

# Product Design & Material Inputs

(What raw materials we use)

## Context

**Kingspan Insulation's products consist of two material components: chemicals used to form the insulating material, plus facings used to cover the surface of the material. Information concerning the precise nature and quantity of inputs is confidential, however the table below outlines the nature of materials used for the two categories of insulation board manufactured.**

**In recognition of the environmental impacts associated with the chemicals industry, the company's Environmental Purchasing Policy and Resource Use Policy state that every effort will be made to replace all or part of the base chemical inputs with materials derived from waste streams from other chemical or production processes, by utilising other recyclable waste, or from sources with an otherwise lower environmental impact.**

**The company is continually looking for opportunities to utilise re-used or recycled materials in the production process, where they will not compromise product quality.**

**The extent of environmental impacts mitigated through product innovation has not been quantified, but Kingspan Insulation is proud of the achievements made to date and remains committed to minimising negative impacts and optimising the lifetime performance of products and production processes.**

	Product type	
	Therma™	Kooltherm®
Chemical Inputs	Methylene diphenyl diisocyanate (MDI); Polyol; Catalyst; Surfactant; Blowing agent; Other proprietary ingredients	Phenolic resin; Blowing agent; Catalyst; Other proprietary ingredients
Facings	Various facing materials, incl. aluminium, paper, glass fibres, cork, fibreboard, etc.	

Materials used in the manufacture of Kingspan Insulation's products

## Relevant GRI Indicators

**EN2 Percentage of materials used that are recycled input materials.**

**EN26 Initiatives to mitigate environmental impacts of products & services.**

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

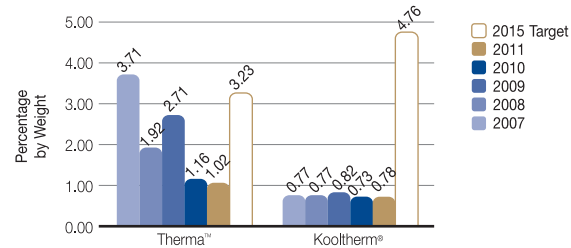
- The company's products have a long life cycle and minimal maintenance requirements.
- In 2002, Kingspan Insulation became the first insulation manufacturer, and the third manufacturer from any sector, to undertake a BRE certified Life Cycle Assessment (LCA). Kingspan Insulation has maintained continuous certification of its Therma™ range since then.
- LCAs, certified by BRE Certification to the 2008 BRE Environmental Profiling Methodology, have been completed for the vast majority of the company's Kooltherm, KoolDuct and Therma insulation products, manufactured at Pembridge. All products profiled received a certified BRE 2008 Green Guide Summary Rating of A+ or A.
- The company has been successful in persuading some of its suppliers to produce independent LCA data for its raw materials. Information about the impacts of manufacture and product safety datasheets are available to customers on request.
- Use of recycled aluminium facings for boards has been explored but proved unviable as the performance was of insufficient quality.
- Research has been conducted into creating polyols that use a plant-based feedstock. This was eventually deemed unviable due to flammability issues with the finished product.
- Trials of waste insertion technology to feed production waste back into the production cycle have proved successful.
- Clear targets have been adopted for the downcycled / recycled / renewable content of products.
- Use of solvent-based adhesives in manufacturing has been abolished, replaced by hot melt glue and moisture-cured urethane adhesives.
- The Environmental Purchasing Policy commits to purchasing FSC-approved timber products as far as possible. All timber and timber products procured are PEFC or FSC Certified.
- All office paper has been switched to 100% recycled paper, and marketing print uses paper that is FSC certified from mixed sources.
- Lifecycle environmental impacts of marketing materials are taken into account.

## 2011 Performance Highlights

The company achieved Programme for the Endorsement of Forest Certification (PEFC) and Forest Stewardship Council (FSC) Chain of Custody (CoC) certification for both Selby and Pembridge.

Certified BRE Environmental Profiling for the Therma range has been extended to include Selby.

### Percentage of Downcycled, Recycled or Renewable Input Materials (incl. Chemicals and Facings)



Recycled / renewable content of products is predominantly dictated by the source of input chemicals. Currently there are very few sources of usable chemicals high in recycled / renewable content. Kingspan Insulation Ltd. is working hard to increase this resource and also find further alternative solutions to increasing recycled / renewable content. The data for Therma™ are variable because of the varying use of 2 particular alternative chemical raw materials.

NB the historical data in this chart has been modified to correct a calculation error in previous reports.



### Action Plan

- Continue a program of product innovation to examine a more 'sustainable' product, e.g. in terms of its source of raw materials (i.e. increases in recycled, renewable or downcycled content), design for recycling / downcycling, etc. This could be through use of life cycle analysis.
- Continue research & development activity to enhance resource efficiency & thermal performance of all products.

Kingspan Insulation has recently helped a Victorian terraced house in Lena Gardens, London become one of only two retrofitted UK properties to achieve the prestigious "Passivhaus" performance standard.

The challenge for low energy house designers Princedale Ecohaus and Green Tomato Energy, was to find solutions which would allow the 3-storey terraced house to perform to the very high levels demanded by the Passivhaus standard. This involved designing and developing all of the systems used in the house, including the air-tight wall configuration.

Due to the terrace being located in a conservation area, all insulation had to be installed internally, so Kingspan's Kooltherm range was chosen for the project as, with thermal conductivities as low as 0.020 W/m·K, relatively thin layers of insulation could be used to achieve the very high levels of thermal performance needed.

Tom Pakenham, Director of Green Tomato Energy said "Our client wanted to convert his house into a home fit for the future. Installing highly efficient, space-saving Kingspan Kooltherm allowed them to achieve this whilst minimizing the loss of internal space. The property is now being monitored to assess its performance in real life."

Philip Proffit, Director of Princedale Ecohaus Ltd. said "The benefits of retro-fitting houses to the Passivhaus standard are tremendous, not only are the annual heating bills for most houses reduced to less than £100 but the combination of an air-tight barrier, insulation and air-tight triple glazing and mechanical ventilation mean that nuisance outside noise such as traffic can be easily shut out, creating a tranquil environment within the house".



# Raw Material Use & Manufacturing Efficiency

(How much raw materials do we use and how much waste do we make)

## Context

**Kingspan Insulation Ltd. recognises the need to reduce consumption of virgin materials in light of increasing pressures on natural resources.**

**The Environmental Purchasing Policy ensures that focus remains on waste elimination. The purchasing department actively pursues materials and technologies which reduce overall waste.**

## Historical Achievements & Ongoing Activities

- Quality and Environmental Management Systems, certified to ISO 9001 and 14001 respectively, are in place at both sites.
- Lean manufacturing techniques, Six Sigma, statistical process control (SPC) and supervisory control and data acquisition (SCADA) have increased the conversion efficiency of manufacturing.
- Since 2008, Kingspan Insulation has undertaken a number of initiatives to address the accuracy and consistency of data collection systems at both manufacturing sites. The introduction of SAP has significantly improved matters and provides real time monitoring of the manufacturing process.
- Factory hardware consists of best practice and most appropriate technology.
- Cost savings have been realised through reducing the length of long-cut boards with associated savings in materials consumed.
- The efficiency of the manufacturing process at Pembridge has been improved by ceasing production of a scrap-intensive product.
- Material inputs are closely monitored. Exact amounts of constituent materials are known and measured against product output.
- Refinements to the manufacturing process have significantly reduced the density of Therma™ products without compromising performance. The density of Kooltherm® products has also been significantly reduced. Both actions have decreased the use of raw materials.
- In 2009, advances to the manufacturing process allowed Kingspan Insulation to reduce the thermal conductivity of all products manufactured at Pembridge and Selby, and, as a result, Kingspan Insulation can offer thinner insulation products with lower material inputs. Kingspan Insulation continues to look at ways to reduce the thermal conductivity of all products.
- The newer manufacturing line at Pembridge and the line installed at Selby have the facility to 'flush-back' left over chemical input still in the pipes prior to a new product run. This avoids wasting chemical input and production of potential scrap product.
- Packaging materials have been substantially reduced. Scrap insulation boards are cut to form skids, thereby removing the need for wooden pallets in storage and transit of most products.
- The use of wooden pallets to store and transport products has been further reduced by the introduction of EPS skids for most heavy products.
- Wood pallets have been eliminated from virtually all incoming deliveries.
- Research has been undertaken to optimise the use of tightwrap and shrink wrap in plastic packaging systems.
- Adjustments to the packaging process have reduced the amount of plastic shrinkwrap and tightwrap used for each pack of insulation boards by approximately 25%.
- All printers have the option for double sided printing, and individual personal printers are only in place where absolutely necessary.
- Production of promotional materials is determined against the anticipated number needed for distribution.

## 2011 Performance Highlights

The amount of waste produced in 2011 increased by 2.1% in comparison with 2010. The amount of Hazardous Waste produced in 2011 achieved a 47.6% annual reduction in comparison with 2010.

Kingspan Insulation continues to implement successful waste minimisation initiatives.

The Pembridge Six Sigma / Lean team continued to focus on improving resource efficiency across the operation. This has resulted in the reduction of scrap generated on the Kooltherm range.

At Selby, the Six Sigma team has identified improvements including board thickness and dye usage.

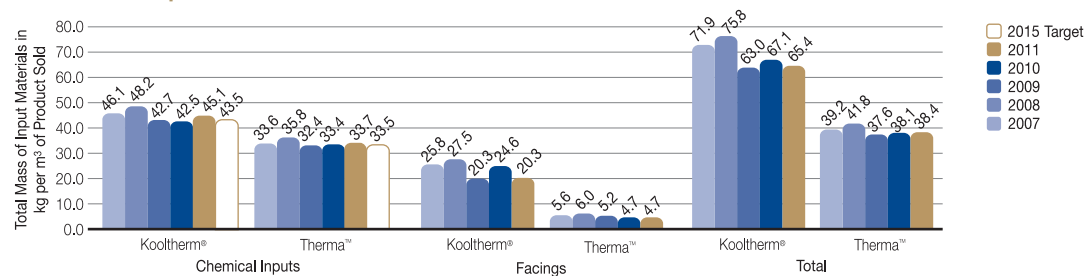
The introduction of statistical process control (SPC) at Pembridge and Selby has enabled manufacturing faults to be identified in real time, improving process efficiency. Also the introduction of supervisory control and data acquisition (SCADA) has improved process efficiency by measuring temperatures, speeds and pressure.

A performance cockpit tool has been developed to monitor trends and benchmark performance at each site. The software also enables manufacturing to be monitored and a traffic light system is used to communicate deficiencies in the process.

The manufacturing facility at Pembridge has undergone a 'World Class' manufacturing status review, which identified 'World Class' practices in 17 out of 19 areas. The two areas where 'World Class' practices are not in place have been addressed. Selby is also working towards achieving 'World Class'.

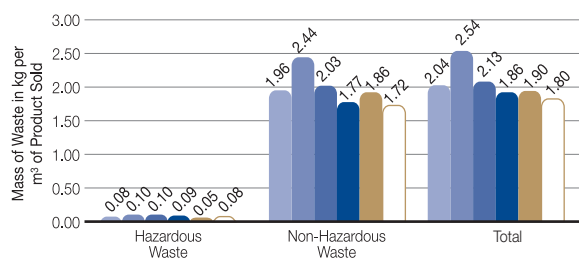
## GRI Indicator Data

### Total Material Inputs



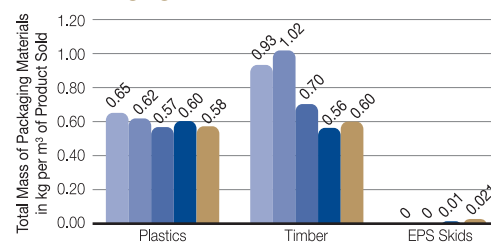
The reduction in consumption of materials per m<sup>3</sup> reflects the reduction in density of both product ranges. The reduction also reflects the return to low wastage rates during the production process following the period of turbulence in 2008 which saw a drop in demand on manufacturing due to the economic recession. For facing materials there are no targets, because the figures are heavily dependent on product sales mix, which is largely beyond the company's control.

### Mass of Hazardous / Non-Hazardous Waste Generated



The general decrease in mass of waste per m<sup>3</sup> of product sold is a reflection of the improvements made to manufacturing efficiencies.

### Total Packaging Materials



Scrap PIR and bought-in EPS skids continue to replace timber pallets as packaging material.

For packaging materials there are no targets, because (a) the number of skids and pallets used is heavily dependent on product sales mix, which is largely beyond the company's control, and (b) there is little or no scope to reduce the quantity of polythene used without compromising the efficacy of the packaging.

## Action Plan

### Product

- Continue to review initiatives for reducing waste from the manufacturing process, to ensure that real reductions are secured for overall production waste volumes. Set targets for reduction to drive decreases in waste per m<sup>3</sup> product.
- Continue product research and development exercises to achieve decreases in total materials consumption and density.
- Achieve "World Class" status for Selby.
- Gain "World Class" status accreditation.

### Packaging

- Further reduce the number of wooden pallets used in product storage and transit, replacing them with skids.

### Office

- Monitor paper usage: a good practice office uses seven reams of paper per person per year.
- Implement double-sided printing as the default setting for all IT systems.
- Install user controls to printers, so that documents will print only when user enables the printer to do so and not automatically. This will reduce unwanted printing left at printer points.

# Waste Management

(What do we do with waste)

## Context

**Kingspan Insulation Ltd. is committed to the principles of the waste hierarchy: avoid, reduce, re-use, recycle, and dispose responsibly. The Environmental Purchasing Policy ensures that waste is disposed of by the most environmentally sustainable means. The company applies the Best Practical Environmental Option (BPEO) principle to all waste streams. Kingspan Insulation Ltd. is also committed to reducing the levels of waste generated by products when they reach construction sites, and ultimately to providing an end-of-life solution for the disposal of all non-reusable products.**

## Relevant GRI Indicators

### EN22 Total weight of waste by type & disposal method.

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Waste Management Process

- Kingspan Insulation Ltd. has set up a Waste Working Group to find the best disposal routes for waste materials from manufacturing and that collected via the Site Waste Take-Back Scheme.
- An audited Waste Management Procedure has been established as part of Kingspan Insulation Ltd.'s Environmental Management System. The procedure covers correct definition and labelling of waste streams, waste management flows for all waste streams generated on-site, and processes for disposal of plant equipment and Waste Electrical and Electronic Equipment (WEEE).
- Waste management is sub-contracted, but the disposal route of each material is tracked and volumes reported. The sub-contracted waste company is routinely audited.

### Waste from Inbound Materials

- A waste sorting and reclaim area is in operation within both factories, where metal, paper, cardboard, roll cores, polythene and wood wastes are separated and measured. Plastics and cardboard are baled and sold to external companies for recycling or downcycling.

### Manufacturing Waste

- Manufacturing staff have been trained in waste segregation. Waste Management Industry Training & Advisory Board training has been provided to all main operators responsible for managing waste. Waste champions have been appointed.
- Special waste represents a small proportion of total waste. It is sorted, labelled and transferred for treatment or incineration.
- The recycling area at Pembroke has been expanded and, as a result, less material is now being sent for sale as second quality.
- Second quality boards are sold to a specialist second quality board distributor, damaged boards are cut to create packaging skids.
- Kingspan collaborated with the National Industrial Symbiosis Project (NISP) to identify potential recycling and recovery outlets.
- The company has continued to explore potential disposal routes for recycling and downcycling of waste products.

### Office Waste

- Segregation facilities are provided within offices for paper, cardboard, and printer cartridges. Cooking oil is collected and recycled.
- Waste office electrical equipment is donated to charities and schools where possible.

### Other Waste Materials

- The logistics supplier recycles engine oil and engine filters, whilst the tyre servicing contractor recycles over 90% of waste tyre products.
- Waste concrete or hardstanding generated from on-site construction works is retained for future use as hardcore.
- Garden waste is composted.

### Construction Site Waste

- Pre-mitred boards have been designed to reduce waste generated through cutting boards to fit flat roofs on construction sites.
- Although the product tends to be landfilled, the company can advise the customer on alternative methods of disposal or on re-use.
- Kingspan Insulation became signatories to the WRAP Halving Waste to Landfill initiative.
- An award-winning Site Waste Take-Back Scheme collects waste insulation off-cuts from construction sites.

## 2011 Performance Highlights

The percentage of waste recycled and recovered increased to 70.6%.

Waste to Energy is used for the majority of manufacturing and waste and that collected via the Site Waste Take-Back Scheme.

The Pembroke and Selby sites have recommenced the export, to Germany, of waste for downcycling as an input to a building board product, with the re-opening of the manufacturer involved in July 2011.

Ongoing improvements are being implemented with the aim to achieve more effective "dry waste recycling".

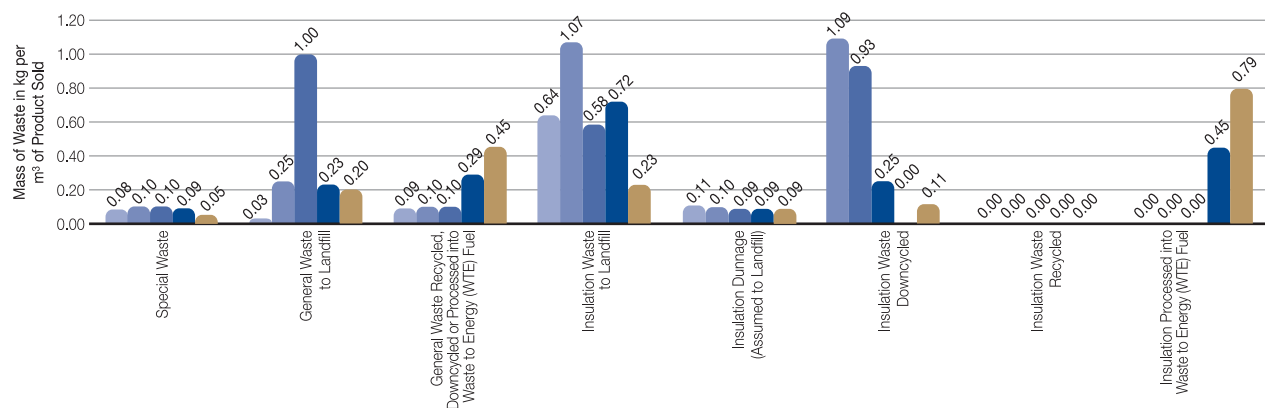
The Site Waste Take-Back Scheme continues to expand.

Kingspan Insulation has contributed to WRAP's development of a Resource Efficiency Action Plan (REAP) for the industry. The Action Plan is directed at companies that produce, handle or influence building insulation foam waste from the construction sector, either directly or indirectly, as well as interested stakeholders.



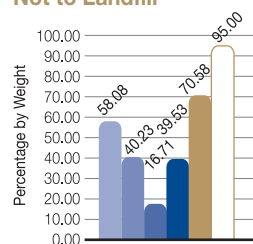
## GRI Indicator Data

### Mass of Total Waste by Type and Disposal Method

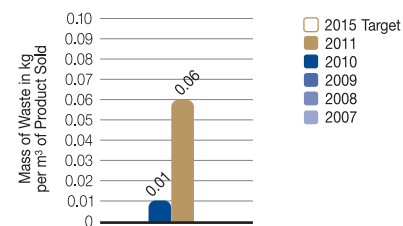


The decrease in mass of insulation waste downcycled reflects a downturn in the markets for the products into which these materials are downcycled. This disposal route is being replaced by Waste to Energy.

### Percentage of Waste Not to Landfill



### Site Waste Take-Back



## Action Plan

### Waste Management Process

- Assist in the completion of WRAPs Resource Efficiency Action Plan (REAP) for the industry.

### Manufacturing Waste

- Continue research and development activity to identify suitable, non-landfill, disposal routes for manufacturing waste.
- Fulfil target for 95% (pbw) of waste leaving the manufacturing sites to be destined for suitable, non-landfill, disposal routes.

### Construction Site Waste

- Continue research and development activity to identify suitable, non-landfill, disposal routes for waste collected via the Site Waste Take-Back Scheme.

### Demolition Waste

- Contribute, via Trade Associations, to finding a solution for the safe disposal of older product containing CFCs and HCFCs (in blowing agent).



A Take-Back scheme has been launched to collect waste off-cuts from construction sites. The waste is collected by trucks on subsequent deliveries to sites, and back hauled.

# Water Consumption & Disposal

## Context

**Kingspan Insulation Ltd. recognises the necessity to minimise consumption of water resources on-site, particularly from municipal supplies. The company aims to act responsibly and comply with all relevant legislation in conserving water, managing water supplies to site, and monitoring water that escapes from site from point sources. Kingspan Insulation Ltd. aspires to best practice water management and aims for continual improvement in water use. The company seeks to develop policies and investigate technologies that will reduce the volume of water consumed.**

## Relevant GRI Indicators

### EN8 Total water withdrawal by source.

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Source

- Operations across both sites are 100% dependent on municipal water supplies.
- Water abstracted from a licensed borehole on-site at Pembridge is supplied to a local farmer.
- Options to develop a rainwater harvesting system to collect water from the warehouse roof at Pembridge have been explored, but their poor investment return proved prohibitive.
- The potential for greywater harvesting on existing buildings at both sites has been explored but is not financially viable.
- The Building Development Policy dictates that all future building works should consider rainwater and greywater harvesting where practicable.

### Use

- The manufacturing process requires relatively little water.
- Testing and maintenance of the sprinkler system has been identified as the main user of water on both sites. As a result, at Selby, the sprinkler system has been updated.
- All water piping at Pembridge has been mapped and checked for leaks. At Selby, a leaking pipe has been replaced.
- Water-efficient appliances have been installed where possible at both Selby and Pembridge, although low water pressure in the main offices at Pembridge prohibited the use of push taps and other water saving devices.
- The Building Development Policy dictates that, where practicable, water-saving devices are incorporated into all future water consuming plant installations.
- A policy, action plan and targets have been developed for ongoing improvements in water management.
- Five water sub-meters have been installed across the Pembridge site to monitor water consumption more precisely and identify potential savings. Readings are taken on a weekly basis.
- Action has been taken to increase staff awareness of the importance of water conservation.

### Disposal

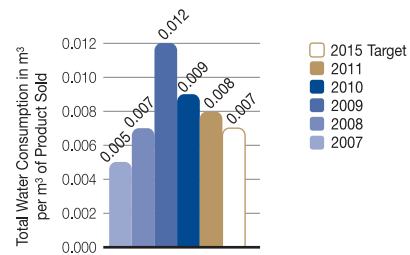
- The Pembridge site has no foul drainage. Septic tanks, biodigesters and a reed bed are used to store and treat waste water. Water emitted from the reed bed is regularly tested for quality by the Environment Agency.
- The potential to install a biodigester waste treatment plant and / or reed beds to purify waste water at Selby has been investigated, but were considered uneconomical. The site produces a limited amount of foul drainage and already has effective mains drainage in place.

## 2011 Performance Highlights

Following a series of issues with previous meters, a new water meter has now been installed successfully at Selby enabling the site to monitor its water consumption more accurately.

## GRI Indicator Data

### Total Water Consumption



The increase in consumption per m<sup>2</sup> in 2009 was caused by persistent problems with the sprinkler system and with leaking pipes at the Selby facility. These problems have now been eradicated.

## Action Plan

- As part of future site development / biodiversity management works, consider the introduction of a Sustainable Urban Drainage System (SUDS) for hard-standing areas, to more effectively manage water runoff. This could be done by incorporating more vegetation on the site and / or replacing asphalt with permeable and semi-permeable alternatives.
- Consider initiating an in-house programme to regularly monitor levels of pollution in all water courses local to the site.
- Investigate the potential to map all water piping at Selby and check for leaks.
- Explore the potential for recapturing water drained during testing and servicing of the sprinkler system for re-use.
- Install water sub-meters at Selby to monitor water consumption more precisely and identify potential savings.



The reed bed at Pembridge continues to operate effectively.



# Energy & Greenhouse Gas Emissions

## Context

**Kingspan Insulation Ltd. recognises that greenhouse gas emissions reduction represents one of the major challenges facing business and governments in the 21st century. The company provides products to the construction industry that reduce energy consumption and the emission of greenhouse gases. Kingspan Insulation Ltd. is committed to minimising the greenhouse gas emissions from its manufacturing processes.**

**The company has already introduced measures to reduce the emissions from current business activities, and continues to approach all new business ventures with greenhouse gas emissions reduction firmly at the forefront of decision-making. Kingspan Insulation seeks to continuously improve its performance in all areas of business and maintain its reputation within the construction industry as a company actively addressing greenhouse gas emissions reduction.**

## Relevant GRI Indicators

<b>EN3</b>	<b>Direct energy consumption by primary energy source.</b>
<b>EN4</b>	<b>Indirect energy consumption by primary energy source.</b>
<b>EN16</b>	<b>Total direct &amp; indirect greenhouse gas emissions by weight.</b>
<b>EN18</b>	<b>Initiatives to reduce greenhouse gas emissions &amp; reductions achieved.</b>

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Management Systems

- Both sites are dependent upon grid electricity and gas supplies, supplemented by small volumes of kerosene for heating.
- There is a company policy on Greenhouse Gas Emissions, containing objectives for energy use and decarbonisation.
- Energy use is monitored by means of energy meters for gas and electricity, with increased sub-metering.
- Energy consumption reporting, on both sites, uses an online tool which is able to display half-hourly gas and electric use in real time. This resource has helped monitor energy use, react to anomalies more quickly, and formulate strategies to reduce energy use.

### Decarbonisation

- In 2008 a CHP plant was commissioned at Pembridge with the aim to reduce the emissions associated with energy supplies for the site. Waste heat is used in the production process and to heat the warehouses and factory. In 2010, the CHP plant was upgraded to improve heat recovery. The manufacturing site at Selby is ready for future implementation of a Combined Heat and Power (CHP) system, as and when there is sufficient heat demand.
- Investigations into installing a wind turbine at Pembridge revealed a “wind availability factor” too low to justify the investment.
- Kingspan has registered for the UK Carbon Reduction Commitment Energy Efficiency Scheme.

### Manufacturing Energy Use

- Increased conversion efficiency of raw materials has resulted in significant reductions in energy consumption per unit of production.
- A number of measures have been implemented wherever practical on both sites to increase energy efficiency, such as:
  - energy efficient compressors; improved controls for extraction and compressed air systems;
  - a compressed air survey was undertaken at Pembridge to identify leakages at the site;
  - temperature control of curing ovens was improved, with an estimated energy saving of 20%;
  - soft starters and load demand sensing on all large motors to reduce power use on start-up;
  - rapid roll doors on warehouses to reduce opening time and thereby space heating requirements;
  - variable speed motors on production lines;
  - skylights to increase daylighting and energy efficiency; and
  - replacement of halogen lighting systems with highly energy-efficient holophane lighting systems.
- All fork lift trucks are Liquid Petroleum Gas (LPG) powered at the Selby site. Only two diesel powered fork trucks remain at Pembridge.
- A Liquid Petroleum Gas (LPG) tank has been installed at Pembridge to store fuel for LPG powered fork lift trucks.
- Trials have taken place into replacing shrink wrap product packaging with less energy-intensive tight wrapping. Whilst energy saving was possible, the quality of packaging decreased to an unacceptable level so further trials have been abandoned.

### Office Energy Use

- Occupancy sensors, energy saving bulbs and thermostats have been installed in office blocks.
- Heating, lighting and printer equipment are switched off when not in use, specifically at night.

### Other Climate Change Issues

- Air-conditioning or refrigeration equipment is CFC / HCFC-free. The use of HFC refrigerants is managed. Their acceptability is assessed on the basis of total equivalent warming impact (TEWI) and the lowest impact equipment is purchased where viable.
- Kingspan Insulation's products are CFC / HCFC free.
- New video-conferencing equipment has been installed at both Pembridge and Selby sites.

## 2011 Performance Highlights

In 2011, Kingspan Group introduced a target to achieve Zero Net Energy by 2020. As an interim step, each Division of the Group must achieve a minimum of 8% energy consumption reduction and replace 50% of all grid based energy with self generated renewable energy by 2015.

Following the introduction of the Group target, Kingspan Insulation introduced a target to reduce overall monthly energy consumption by 5%, based on 2010 data, by the end of 2012 with a further 2% reduction in energy consumption by 2013.

To monitor progress against these targets, energy consumption and associated greenhouse gas emissions are measured and reported annually.

As part of the Zero Net Energy Target Kingspan Insulation has installed one of the largest photovoltaic (PV) arrays in the UK on the roof of its Pembridge manufacturing facility. 5,583 m<sup>2</sup> of roof space is now covered by the Kingspan PowerPanel System, which was supplied by sister company, Kingspan Insulated Panels. The system has a design capacity of 800kW, providing approximately 10% of the site's electricity demand.

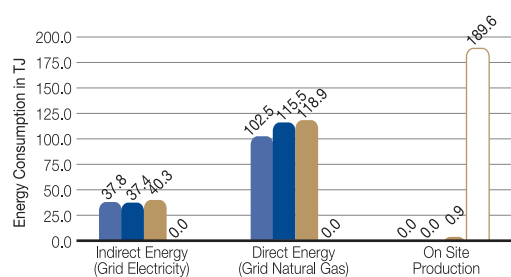
Johnson Controls have undertaken an energy review of the Pembridge site. A number of improvement opportunities will be implemented in 2012 with associated greenhouse gas savings.

An action plan is being produced at Selby to reduce manufacturing related energy.

All compressed air leaks identified in the 2010 survey have been fixed. The introduction of load demand control on large extraction fans has reduced energy consumption.

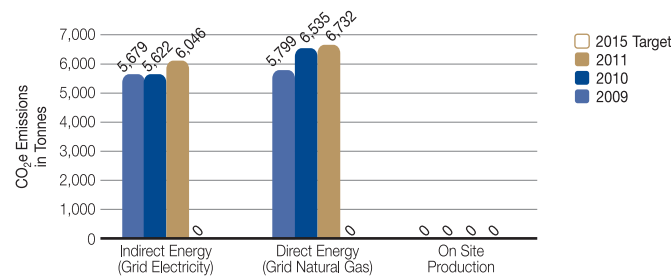
## GRI Indicator Data

### Energy Consumption by Energy Source



Electricity use has decreased marginally and gas use has increased significantly because of a change in the mix of products manufactured.

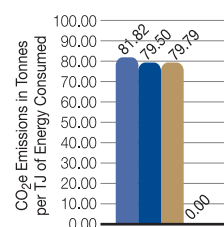
### CO<sub>2</sub> Equivalent Emissions by Energy Source



Emissions from direct and indirect energy consumption were calculated using conversion factors obtained from the Department of Environment, Food and Rural Affairs (Defra), by way of the UK Greenhouse Gas Inventory for 2009.

This proposed an emissions level of 0.20374kg CO<sub>2</sub> per kWh of natural gas consumed, and a conversion factor of 0.54055g CO<sub>2</sub> per kWh of grid electricity consumed (5-year rolling average).

### CO<sub>2</sub> Equivalent Emissions per Unit of Energy Consumed



This metric has reduced because of the marginal decrease in electricity use and the marginal increase in gas use, which has a lower CO<sub>2</sub>e emissions conversion factor.

## Action Plan

- Install gas and electricity sub-metering in all warehouse areas, individual production lines and ancillary machinery, to enable targeting of areas for energy savings. Install centralised energy monitoring software that feeds from the sub-metering data.
- Utilise centralised energy consumption monitoring data to enable management to understand consumption demands, trends and opportunities for future energy savings.
- Investigate options to improve the performance of the CHP plant at Pembridge.
- Install CHP plant at Selby as soon as production levels necessitate the heat demand to justify capital expenditure.
- Install on-site low or zero carbon energy sources for both Pembridge and Selby production plants, in order to meet the Kingspan Group Zero Net Energy Target.
- Replace the last two diesel powered fork lift trucks at Pembridge.
- Install LED lighting, where practicable, throughout the business.
- Install daylight detection sensors to factory lighting to ensure that electric lights are only used when daylight levels are below a practical minimum.
- Install proximity detection shut-off to lighting, where practicable and not already in place, throughout the business.
- Fully refurbish Selby premises to improve energy performance.
- Complete the work program suggested by the Johnson Controls energy review, where practicable.
- Ensure teleconference facilities are used by staff.
- Reproduce the success of the manufacturing energy awareness scheme through an office education programme for all staff to increase energy efficiency and reduce consumption.

# Transport

## Context

**Kingspan Insulation Ltd.'s rural location has historically made transport a challenging area to manage, but one in which the company strives for best practice both for staff travel and haulage.**

**Due to the limitations of rail and water transport for accessing the sites, all freight transported to and from Kingspan Insulation Ltd. is delivered by road vehicle. The company recognises that transportation of constituent materials and products to and from its manufacturing sites presents significant impacts to the environment at large, and specifically to local communities. The company is committed to minimising these impacts. Please also refer to the section of this report titled "Social and Community Initiatives". The main logistics supplier has an environmental policy and is working with Kingspan Insulation Ltd. to improve environmental performance. The company endeavours to rationalise and centralise product deliveries so that fewer trips are made, and to pursue continual performance improvements.**

## Historical Achievements & Ongoing Activities

### Inbound Logistics

- The vast majority of constituent materials sourced from overseas are imported by ship and road.
- Policies are in place to rationalise material deliveries wherever possible and the majority of materials are delivered in large articulated vehicles or tankers to reduce vehicle movements.
- Companies delivering materials are advised of the most efficient routes, with minimum disruption to the local community.

### Outbound Logistics

- A Transportation Policy and Action Plan has been developed to establish a systematic approach to 'greening' freight transport.
- Outbound logistics are managed by an external haulage contractor, in liaison with Kingspan Insulation Ltd.
- The dual manufacturing locations are being fully leveraged to minimise transportation of finished goods.
- Overall fuel efficiency of the transport fleet has increased through measures such as:
  - Safe and Fuel Efficient Driver (SAFED) training, and bonuses are paid to haulage drivers, based on fuel consumption;
  - a miles per gallon (MPG) tracker has been introduced and MPG targets set for all haulage vehicles.
  - a company 'fuel champion' has been appointed and MPG has also been adopted as a KPI;
  - aerodynamic styling has been introduced to haulage units and engine efficiency is upgraded as new units are introduced.
- Further measures to reduce mileage and maximise container and fleet utilisation have been introduced such as:
  - more efficient routing systems to reduce mileage and maximise 'back haul' opportunities;
  - HGVs with a capacity of 63 m<sup>3</sup> have been replaced by demountable vehicles with a potential capacity of 92 m<sup>3</sup>; and
  - the introduction of the Selby site has dramatically increased transport efficiency due to its location in the north of the UK.
- Alternative fuels, such as biodiesel, have been investigated. Moving to 95% biodiesel was rejected on sustainability and economic grounds. Outbound haulage vehicles currently utilise a 5% biodiesel mix.
- Rail freight has been explored but was considered impractical from a financial and logistical perspective.

### Staff Travel

- The rural location of the Pembridge site and its distance from local towns means that the site is dependent on road transport and there are few viable alternatives to the private car for employee travel.
- The Selby site is in closer proximity to local communities than Pembridge and is well served by public transport (bus and rail).
- A staff travel survey was undertaken across both sites to understand patterns of transport use and reasons for poor uptake of more sustainable travel options. Feedback was used to guide a Green Travel Plan which was launched in 2008 and incorporates incentives for car sharing, which is done by a significant proportion of employees.
- A company specific car sharing website has been launched on the company's intranet.
- Negotiations have been undertaken with local bus service providers with the aim to improve public transport links to the Pembridge site, although a financially agreeable solution for both parties could not be reached.
- A small number of employees cycle to work at both sites, secure and covered bike storage areas have been provided at Pembridge and showering and changing facilities are available in the factories at both sites.
- The financial and environmental benefits of more sustainable commuting methods have been promoted to employees and a "Guaranteed Lift Home" scheme with local taxi firm is in place for both Pembridge and Selby.

## 2011 Performance Highlights

The company has continued to roll out existing policy action plans in order to fully complete initiatives such as SAFED driver training, upgrading vehicle engines to EURO V and reducing vehicle movements.

During 2011, Kingspan Insulation employed a logistics consultant to benchmark their performance and that of haulage providers. This exercise revealed a number of opportunities where the logistics performance could be improved resulting in significant cost and environmental savings.

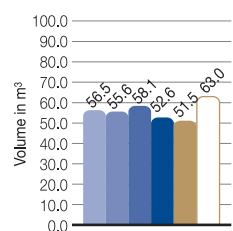
The introduction of new software to improve logistics performance has further generated significant cost savings and reduced fuel use and greenhouse gas emissions.

Driver behaviour has been targeted through SAFED, resulting in an 8-10% reduction in transport miles.



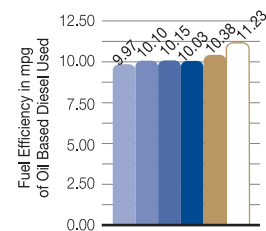
## GRI Indicator Data

### Volume Delivered per Vehicle Dispatch



The improvement in volume per vehicle dispatch has reversed, largely because the current downturn is resulting in more fragmented order patterns and smaller individual orders.

### Fuel Efficiency

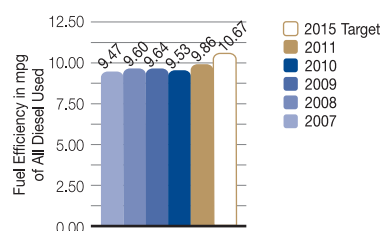


Fuel efficiency data are calculated from mileage figures recorded by tachographs and gallons of fuel consumed from fuel provider. Fuel is 95 per cent oil-based.

The current downturn is resulting in more fragmented order patterns and smaller individual orders. This means more drops per vehicle dispatch, which means more stop start journeys which are less fuel efficient.

However, this has been offset by the introduction of routing software and driver training, which have reduced miles travelled.

### Fuel Efficiency



## Action Plan

- Investigate changing outbound logistics fleet from square sectioned trailers to aero-dynamically shaped trailers.
- Trial larger trailers for outbound logistics fleet.
- Continue to work with hauliers to improve transport efficiency, in terms of fuel types, driving practices & distances travelled.
- Provide secure, covered cycle storage facilities at Selby.
- Promote car sharing by providing “car share only” parking spaces.
- Improve logistics performance by carrying out the recommendation of the 2011 logistics consultancy report.



Children at the Pembridge based Busy Bees playgroup have been buzzing around on their new scooters and tricycles thanks to funding from the Kingspan Insulation Community Trust.

The volunteer run playgroup received over £890 from the Trust to replace their old, worn out equipment with eight new ride-on toys including tricycles, bikes and scooters along with a tumble mat, ensuring the children can play safely at Pembridge village hall where the group takes place.

Over at Busy Bees playgroup, physical play is seen as a fundamental part of a child's development and this new equipment has enabled their children to take part in exciting and interesting activities, both indoors and outdoors, while at the same time acting as a basis for learning about basic road safety.

Claire Good from Busy Bees commented “We have over 60 children on our register and about 35 children of mixed ages attend the playgroup weekly, from very young toddlers to four year old pre-schoolers. This new equipment enables us to offer them all lots of variety in their play and because its high quality it will last us for years to come.”

# Social and Community Initiatives

## Context

**Kingspan Insulation resolves to be a considerate neighbour to local communities. It recognises the need to communicate directly with neighbours, to be transparent about activities which might affect the surrounding area, and to take a responsible attitude towards potential impacts. A proactive approach is taken to consult with neighbouring communities and ensure that they share in the benefits of the company's successes. Local groups are actively engaged in sustainability initiatives led by Kingspan Insulation.**

## Relevant GRI Indicators

**EC1 Donations & other community investments.**

**SO1 Programs & practices to assess impacts of operations on communities.**

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Charitable Initiatives

- The company aims to achieve a target of investing 0.25% of pre-tax profits into community and charitable initiatives.
- The Kingspan Insulation Community Trust was established in 2006 as a registered charity, through which the company donates to community initiatives. Grants are made annually at the discretion of a Board of Trustees. Funding is awarded for projects supporting ecology and biodiversity, healthy recreation for young people, or road safety. Details of projects funded by the Kingspan Insulation Community Trust can be found at [www.KingspanInsulationCommunityTrust.org](http://www.KingspanInsulationCommunityTrust.org).
- In order to support Local Agenda 21, the grant giving of the Kingspan Insulation Community Trust favours Parish Plan initiatives.
- Funding was provided to support the development of an "Ecoclassroom" at Lady Hawkins' School. For more information visit: [www.kingspaninsulation.co.uk/About-Us/Community/Schools/Specialist-School-Sponsorship.aspx](http://www.kingspaninsulation.co.uk/About-Us/Community/Schools/Specialist-School-Sponsorship.aspx)
- Funding was provided for the design and delivery of a theatre production engaging schoolchildren in sustainability themes during 2007 and 2008. For more information visit: [www.kingspaninsulation.co.uk/About-Us/Community/Schools/Sustainability-Education.aspx](http://www.kingspaninsulation.co.uk/About-Us/Community/Schools/Sustainability-Education.aspx)
- Donations have been made to support the achievement of specialist school status at Tenbury High School, Lady Hawkins' School and Wigmore High School, located in proximity to the Pembridge facility.
- Kingspan Insulation Ltd. provides match funding of up to £100 per employee undertaking fundraising activities on behalf of registered local charities, and up to £50 for national charities.
- Old IT equipment is offered to local schools and charities free of charge.

### Community Engagement

- The company sponsors, and contributes articles to, four local village newsletters, to inform stakeholders about business activities and projects in areas of environmental impact, social engagement, resource use and economic viability.
- Community-facing websites are maintained, detailing ongoing initiatives and the work of the Community Trust. For more information, visit: [www.kingspaninsulation.co.uk/About-Us/Community.aspx/www.KingspanInsulationCommunityTrust.org](http://www.kingspaninsulation.co.uk/About-Us/Community.aspx/www.KingspanInsulationCommunityTrust.org)
- Since 2008, the company has conducted a biannual community consultation exercise to refine and improve community engagement initiatives.
- The company hosts a number of industry experience days each year at Pembridge. These are activity packed days covering various areas of the business i.e. design, marketing and manufacturing. It is also involved in various careers education schemes at local secondary schools. This includes mock interviews, school enterprise days, careers conventions and work experience. For more information visit: [www.kingspaninsulation.co.uk/About-Us/Community/Schools/Careers-Education.aspx](http://www.kingspaninsulation.co.uk/About-Us/Community/Schools/Careers-Education.aspx).

### Mitigating Community Impacts

- Noise assessments have been undertaken around both sites, and noise levels found to be below statutory minimums.
- The locations and setting of both sites mean that there is minimal conflict with surrounding land uses.
- 24-hour manned security is in place, in addition to CCTV and perimeter protection to maintain both safety and security.
- Lighting at Pembridge has been re-angled to mitigate its impact on surrounding residents, and meets with local council approval.
- A 'Geofence' system has been implemented in 12 villages local to the Pembridge site, to monitor haulage vehicle speeds.
- The company provides maps, in eleven languages, to help correct routing of inbound haulage.
- Community consultations have resulted in initiatives such as increased night-time haulage and specific local routing to manage noise impacts from haulage and road safety concerns.
- During 2009 a system was introduced to log formal complaints from the local community, for which there is a target of zero.
- In 2009, Kingspan Insulation Ltd. ran a Road Safety event for local schools to teach the children about the dangers of large vehicles on rural roads. For more information visit: [www.kingspaninsulation.co.uk/About-Us/Community/Schools/Sustainability-Education.aspx](http://www.kingspaninsulation.co.uk/About-Us/Community/Schools/Sustainability-Education.aspx).
- There are no significant local air pollution sources and monitoring of emissions to air is undertaken regularly, as required by legislation.

## 2011 Performance Highlights

In 2011 employees at both the Selby and Pembridge facilities took advantage of the Kingspan Insulation Ltd. match funding sponsorship initiative to raise money for charity.

In 2011, Kingspan Insulation's donations to local community and charitable initiatives equated to 0.24% of pre-tax profits.

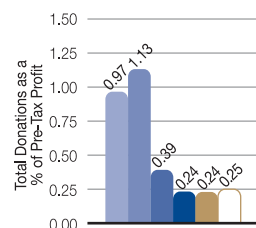
Industry experience days were conducted for a number of local schools.

Two members of Kingspan Insulation staff visited Lady Hawkins' School in Kington to undertake mock interviews with pupils.

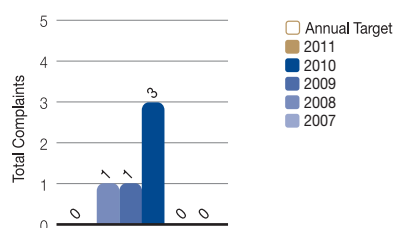
Route maps for inbound hauliers were adjusted to help mitigate a problem with traffic in the village of Marston, local to the Pembridge site.

## GRI Indicator Data

### Local Community and Charitable Donations



### Non-Product Related Formal Complaints from Local Communities



The current economic climate has forced Kingspan Insulation Ltd. to concentrate on investment in business activities and as a result the company has reduced its target level of local community and charitable donations to 0.25%. The spike in community complaints in 2010 was due to issues with inbound hauliers.

## Action Plan

- Consider collaborating with other businesses on the Selby industrial site to engage with local community.
- Install more road signs to direct drivers via the preferred route into the Pembridge site and mobilise local support for this change in signage.
- Repeat the community consultation exercise biannually i.e. in 2012, 2014, 2016.....
- Consider installing speed indicator devices (SIDs) in villages local to Pembridge through which outbound hauliers travel.
- Consider further widening the area covered by the Kingspan Insulation Community Trust.



Lady Hawkins School is constantly encouraging and increasing eco awareness amongst its students and thanks to funding from the Kingspan Insulation Community Trust recycling now plays an important part in this.

Lisa Williams, Chairperson for the School Council put forward an application to the Kingspan Insulation Community Trust for the purchase of six purpose-built recycling bins to be placed around the school grounds; three for plastic bottles and three for cans.

The Trust awarded over £800 for the purchase of these bins which will have a green bottle aperture, graphics and text for "Plastic Bottles Only", and a red can aperture, graphics and text for "Cans Only".

Kevin Gwynne, Bursar for Lady Hawkins said "We already encouraged our students to recycle as much as possible and with these new bins it is easier for them to make a conscious effort to recycle rather than just throwing away their rubbish."



# Biodiversity & Natural Heritage

## Context

**Given the rural location of its facilities, biodiversity is an area in which Kingspan Insulation Ltd. has felt able to make significant contributions to environmental sustainability.**

**Neither site is located in proximity to areas designated for high biodiversity or conservation value, although ecological appraisals of the Pembridge and Selby sites have identified potential for ecological value due to agricultural usage of the surrounding area. Kingspan Insulation Ltd. has sought to build on this underlying potential through a robust management approach to biodiversity.**

## Relevant GRI Indicators

**EN11 Location & size of land owned, leased, managed in or near to protected areas & areas of high biodiversity value.**

**EN14 Strategies, actions & plans for managing biodiversity impacts.**

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Actions Taken on Manufacturing Sites

- During 2006 an appraisal of the biodiversity of the Pembridge site was commissioned. This included a biodiversity-sensitive site maintenance plan, which is being followed, and an action plan to encourage and improve the biodiversity of the site.
- During 2008, most of this action plan was implemented via a community initiative bringing together university students with local school children. New habitats were created, including bee banks, a bug hotel, plus native tree planting. Measures were taken to provide natural habitat for nesting birds and encourage the development of meadow-type habitat. Bat and bird boxes have also been installed. Notices were installed at points around the site to inform staff about this biodiversity work. For more information visit: [www.kingspaninsulation.co.uk/About-Us/Community/Schools/Sustainability-Education.aspx](http://www.kingspaninsulation.co.uk/About-Us/Community/Schools/Sustainability-Education.aspx)
- A company Landscaping Policy has been prepared to mitigate biodiversity risks by ensuring full consideration is given to biodiversity objectives during decisions about all site activities. The Policy stipulates that:
  - a sympathetic approach will be taken to protecting existing trees and shrubs wherever possible;
  - wherever possible only native trees and shrubs of British Isles origin will be planted;
  - all areas which have been planted with trees, lawns, shrubs etc. will be maintained to high standards;
  - a drawing register will be kept to identify the location on site of different species of plants, shrubs and trees; and
  - any grounds maintenance work that is undertaken will not place at harm or risk protected fauna or flora, and will instead encourage the biodiversity of the site.
- Grounds maintenance staff are familiar with initiatives for the site and have been involved in habitat management work throughout such as using bark chippings to reduce the need for conventional spraying techniques.
- The Environmental Purchasing Policy commits to the use of the most environmentally-friendly pesticides and weed treatment systems and defines which systems will comply.
- The Building Development Policy includes a clause to consider the viability of installing green roofs as part of every planned building development, as a means to enhance biodiversity on-site, reduce run-off, and enhance thermal performance of buildings. The potential to retrofit existing roofs has been explored but current building structures are not considered suitable.
- In 2010, a site biodiversity review was carried out at the Pembridge site, to investigate the impact of the enhancements carried out in 2008.
- In 2010, an appraisal of the biodiversity of the Selby site was commissioned. The appraisal revealed habitats for invertebrates (including cinnabar moth, peacock butterfly and crane-flies) amphibians (common toad, common frog and common newt) and birds (including whitethroat, lesser whitethroat, wren and dunnock).

### Actions Taken in the Local Community

- Areas of ecological value off-site have been enhanced through the Kingspan Insulation Community Trust. An 'Ecological Trustee' sits on the Trust's Board to assist with the project management and development of appropriate biodiversity-related schemes.
- Details of projects funded by the Kingspan Insulation Community Trust can be found at [www.KingspanInsulationCommunityTrust.org](http://www.KingspanInsulationCommunityTrust.org).

## 2011 Performance Highlights

In 2011, the company took part in a project, led by the Herefordshire Biodiversity Partnership, to reverse the decline of lesser spotted woodpeckers and green woodpeckers within Herefordshire. The company supplied insulation for a large number of woodpecker boxes and installed and monitored two woodpecker boxes on its Pembridge site.

## Action Plan

- Following implementation of the Pembridge Biodiversity Action Plan, monitor biannually (i.e. 2012, 2014, 2016.....) to check whether increases in biodiversity can be identified.
- Repeat the 2008 biodiversity work at Pembridge involving local schools, and extend it to include Selby.
- Program initiatives to involve staff in on-site or off-site conservation / landscaping work, both to raise awareness of biodiversity objectives & as a health & wellbeing / staff engagement initiative.
- Roll out Landscaping Policy to Selby site.
- Implement an action plan for site improvement at Selby, as has taken place at Pembridge.
- Develop the biodiversity web page to promote awareness of local biodiversity in the vicinity of both sites and to detail the results of the biodiversity surveys on the sites.



We all look for ways to re-use things and get the most out of everything we have, but clearly the woodpeckers in Herefordshire are thinking outside the box (well in it actually!) as they have been given insulation by Kingspan to do more than keep warm.

Yes that's right, Kingspan Insulation is being used in nest boxes, not only to keep them warm and dry but to replicate the consistency and texture of the wood that woodpeckers need to drum into in order to create nest holes and prepare them for the mating season.

The use of the insulation is part of a bigger scheme from the Herefordshire Biodiversity Partnership to reverse the decline of lesser spotted woodpeckers and green woodpeckers within Herefordshire through surveying and habitat management.

The Herefordshire Biodiversity partnership has been busy building and installing nest boxes that have been placed in targeted areas such as orchard and woodland areas as well as training a number of volunteers who will record breeding woodpeckers behaviour and monitor nest activity, such as which breeds are using the nests and how many. Two of these boxes have also been installed on the Kingspan site.

# Land Management & Premises

## Context

**Both Kingspan Insulation Ltd. facilities are located predominantly on land used as an airfields prior to their adoption for industrial use. Whilst the Pembridge facility is surrounded by agricultural land, the Selby site is situated on an industrial estate which houses other industrial users. The company operates pollution management practices in compliance with regulatory requirements and seeks a best practice approach to pollution control. It has a strong history of compliance with regulatory water quality requirements. Both sites are located on flood plains and have previously been subjected to flooding. The Kingspan Insulation Ltd. accommodation at Selby is currently under-utilised, providing capacity for future expansion.**

## Relevant GRI Indicators

### **EN23 Total number & volume of significant spills.**

*NB See Appendix A for background to GRI.*

## Historical Achievements & Ongoing Activities

### Land

- The majority of both sites is either built on or covered in hard standing.
- At least 90 per cent of the total site at Pembridge, and 100 per cent of the site at Selby, consists of previously used land, which had industrial uses. The sites have development capacity.
- The sites have been assessed for archaeological remains and nothing of importance has been detected.
- In terms of cultural heritage, the re-lad aircraft hangars at Pembridge are the only notable features on either site.
- A best practice Landscaping Policy has been adopted at both sites. This policy is particularly important at Pembridge due to the rural location, where boundaries and external views of the site are to be in keeping with the local area and wherever possible, where large buildings are situated close to the boundary, they will be screened effectively using native tree species.
- It is unlikely that much of the indigenous soil profile remains on either site, due to their history of industrial uses. Topsoil from the redevelopment of the Pembridge site has been taken to a local quarry for use as topsoil fill.

### Contamination

- Neither site is located in a Groundwater Source Protection Zone.
- Site ground analysis tests have been completed to identify any land contamination at Pembridge.
- A new septic tank was installed at Pembridge in 2008 to strengthen facilities to separate rainwater and foul water, thereby improving the management of contamination risks.
- As part of the Kingspan Insulation Ltd. ISO 14001 accredited Environmental Management System and the OHSAS 18001 accredited Health and Safety Management System, there is a robust reporting procedure in place to record all chemical spills.
- Contamination is mitigated at both sites through provisions for effective management of chemical spills. Designated spill teams are always available on-site to deal with spills. Teams are trained and tested annually. Spill kits are distributed around the site.
- There have been no spills during recent years which were substantial enough to be reported under regulatory requirements.
- Fuel interceptors are checked monthly for signs of contamination.

### Surface Water Management

- Effective drainage systems are in place to remove excess surface water.
- A pond on the Selby premises is used to assist in the effective drainage of water from hard standing areas. Water is pumped to the pond prior to removal from site.
- Flood defence systems have been strengthened at Pembridge with the provisions of additional soakaways, excavation and extension of neighbouring culverts and the installation of an underground sump with infiltration drainage underneath one of the large warehouses.
- A robust maintenance programme has been implemented at both sites to regularly monitor drainage infrastructure to prevent blockages and consequent flooding.

### Buildings

- Buildings have in-built flexibility to extend their life, especially the high-bay warehouse at Pembridge.
- Buildings are refurbished rather than replaced wherever possible: at Pembridge, office buildings have been refurbished and the old aircraft hangars re-clad for use as warehouses. Materials from the old runways located at Pembridge have been re-used for building foundations.
- A Building Development Policy is in place, and the company aspires to achieve BREEAM 'Excellent' for new buildings on the company estate. A retrospective and indicative BREEAM assessment was conducted on the most recent warehouse at Pembridge, as a benchmark.
- Prior to the introduction of the policy, elements of BREEAM had already been used in site development works, including re-use of demolition materials on-site as aggregate, and installation of an underground sump with infiltration drainage.

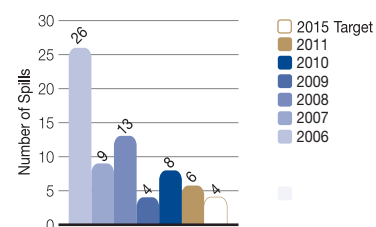
## 2011 Performance Highlights

No significant impacts of spills have been recorded during 2011. No significant spills have been recorded in Kingspan Insulation Ltd.'s financial statement during the last 5 years. A significant spill can be defined as a spill of over 25kg in mass.



## GRI Indicator Data

### Total Number of Spills >10kg in Mass



## Action Plan

- Consider improvements to site defences against localised flooding, especially in relation to changing land use on site associated with new building footprints.

A solid brick, Edwardian terraced house in Balham has been transformed into a model of 21st Century energy efficiency, thanks to high ambitions from its owners, social housing provider, Family Mosaic and architects, Prewett Bizley - and a little help from Kingspan Insulation.

The energy performance target for the refurbishment was based on an 80% reduction in CO<sub>2</sub> emissions. Achieving such a rigorous standard called for the internal fabric of the property to be stripped back, to identify and tackle potential air leakage problems. Then a continuous air tight, high performance internal thermal envelope was constructed - the key to the refurbishment's excellent energy efficiency, according to Robert Prewett of Prewett Bizley. "We chose Kingspan insulation for the ceilings and floors because the products were the cheapest, thinnest and best performing products for that application."

In the first floor ceiling, just 70 mm of Kingspan Kooltherm K7 Pitched Roof Board formed the base layer of the property's continuous lining. Kingspan Kooltherm K3 Floorboard supplied the underfloor insulation for the property.

The success for the project cannot be fully quantified until 12 month data is evaluated. However, the signs are very positive.

The house is already among the best in the UK for airtightness, with an air leakage rate of 1.3 m<sup>3</sup>/hr/m<sup>2</sup>, and an 80% reduction in CO<sub>2</sub> overall is expected.

Tenants moved in to the property in February 2011. Since then the ventilation heat recovery system has provided the sole heat source for the building, and the meagre number of radiators in the house (a heated towel rail purely for comfort and three other radiators installed as a back up in case the mechanical system's performance was less than expected) have, according to Robert Prewett, not been used.

## Appendix A

# Background to GRI G3 Guidelines

**The GRI (Global Reporting Initiative) Reporting Framework is intended to serve as a generally accepted framework for reporting on an organisation's economic, environmental, and social performance. It is designed for use by organisations of any size, sector, or location, and takes into account the practical considerations faced by a diverse range of organisations. The Framework contains general and sector-specific content that has been agreed by a wide range of stakeholders around the world to be generally applicable for reporting an organisation's sustainability performance.**

The Sustainability Reporting Guidelines consist of Principles for defining report content and ensuring the quality of reported information. It also includes Standard Disclosures made up of Performance Indicators and other disclosure items, as well as guidance on specific technical topics in reporting.

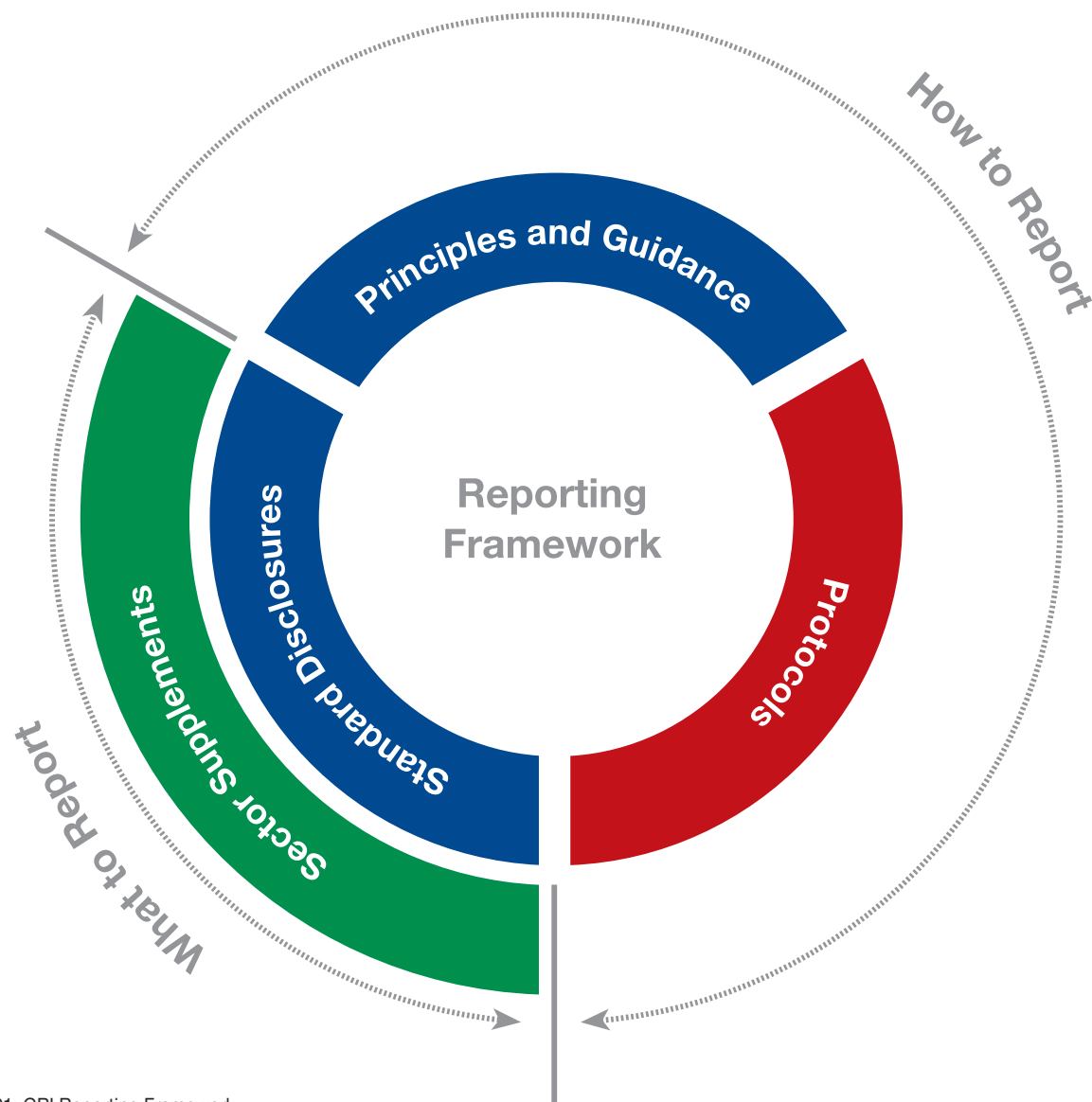


Fig. C1: GRI Reporting Framework

The Standard Disclosures to be included in sustainability reports comprise information that is relevant and material to most organisations and of interest to stakeholders. These include:

- Strategy and Profile: disclosures that set the overall context for understanding organisational performance, e.g. its strategy, profile, and governance;
- Management Approach: disclosures that cover how an organisation addresses a given set of topics, to provide context for understanding performance in a specific area; and
- Performance Indicators: indicators that elicit comparable information on the economic, environmental, and social performance of the organisation.

An Application Level is declared for each report prepared under the GRI Reporting Guidelines. The Application Level communicates which elements of the Reporting Framework have been applied in the preparation of the report. There are three levels in the system, titled C, B and A. The reporting criteria found in each level reflect an increasing application or coverage of the GRI Reporting Framework.

An organisation self-declares a reporting level based on its own assessment of its report content against the criteria in the GRI Application Levels. In addition to the self-declaration, reporting organisations can ask an external assurance provider to provide an assessment of the report content, following which process a "plus" can be declared at each level (i.e. C+, B+, A+). The GRI may also be approached to check the Application Level, thereby enabling a "GRI Checked" stamp to appear in the report.

The table in Figure C2 summarises the requirements of a report declared at each Application Level. This report for Kingspan Insulation Ltd. has been provided external assurance as an Application Level B+ report and covers all of the requirements associated with this Level (as outlined in the Report Content Index found in Appendix B). External Assurance has been provided Caleb Management Services Ltd.

Report Application Level		C	C+	B	B+	A	A+
Standard Disclosures	Profile Disclosures OUTPUT	Report on: 1.1 2.1–2.10 3.1–3.8, 3.10–3.12 4.1–4.4, 4.14–4.15	Report Externally Assured	Report on all criteria listed for Level C plus: 1.2 9.9, 3.13 4.5–4.13, 4.16–4.17	Report Externally Assured	Same as requirement for Level B	Report Externally Assured
	Disclosures on Management Approach OUTPUT	Not Required		Management Approach Disclosures for each Indicator Category		Management Approach Disclosures for each Indicator Category	
	Performance Indicators & Sector Supplement Performance Indicators OUTPUT	Report on a minimum of 10 Performance Indicators, including at least one from each of: Economic, Social and Environmental**		Report on a minimum of 20 Performance Indicators, at least one from each of Economic, Environmental, Human rights, Labour, Society, Product Responsibility***		Report on core G3 and Sector Supplement* Indicator with due regard to the Materiality Principle by either: a) reporting on the indicator or b) explaining the reason for its omission	

\* Sector supplement in final version

\*\* Performance Indicators may be selected from any finalized Sector Supplement, but 7 of the 10 must be from the original GRI Guidelines

\*\*\* Performance Indicators may be selected from any finalized Sector Supplement, but 14 of the 20 must be from the original GRI Guidelines


Report Application Level		C	C+	B	B+	A	A+
Mandatory	Self Declared		Report Externally Assured		Report Externally Assured		Report Externally Assured
Optional	Third Party Checked						
	GRI Checked						

Fig. C2: Application Level Table

(source: GRI G3 Sustainability Reporting Guidelines, available at [www.globalreporting.org](http://www.globalreporting.org))



# Appendix B

## GRI Content Index

Indicators	Description	Page Number
<b>Strategy &amp; Analysis Profile Disclosure Indicators</b>		
1.1	Statement from most senior decision-maker of the organisation	2
1.2	Description of key impacts, risks and opportunities	10–11
<b>Organisational Profile Disclosure Indicators</b>		
2.1	Name of organisation	2
2.2	Primary brands, products and services	4
2.3	Operational structure	4
2.4	Location of headquarters	2
2.5	Number of countries of operation	4
2.6	Nature of ownership and legal form	4
2.7	Markets served	4
2.8	Scale of organisation	4
2.9	Significant changes during reporting period, e.g. size, structure	2
2.10	Awards received in reporting period	20
<b>Report Parameters</b>		
3.1	Reporting period	2
3.2	Date of most recent previous report	2
3.3	Reporting cycle	2
3.4	Contact point for questions	9
3.5	Process for defining report content (materiality; prioritisation; stakeholder consultation)	9
3.6	Boundary of report	9
3.7	Limitations on scope of report	9
3.8	Basis for reporting on joint ventures, subsidiaries etc.	n/a
3.9	Data measurement techniques and bases of calculations	9
3.10	Explanation of effect of any re-statements of information provided previously	n/a
3.11	Significant changes in reporting from previously	2
3.12	Content table identifying location of Standard Disclosures in Report	42–43
3.13	Policy and practice with respect to external assurance	9

Indicators	Description	Page Number
<b>Governance, Commitments and Engagement</b>		
4.1	Governance structure of the organisation	5
4.2	Whether Chair of the highest governance body is also an Executive Officer	5
4.3	Number of members of highest governance body who are independent / non-executive members of the Board	5
4.4	Mechanisms for shareholder / employee consultation	14
4.5	Link between compensation for senior management and company performance	Confidential
4.6	Processes for avoiding conflict of interest	5
4.7	Process for determining expertise of senior management for guiding economic, environmental and social performance	5
4.8	Statements of missions / values, codes of conduct, economic, environmental and social principles	5–6
4.9	Procedures for overseeing management of economic, environmental and social performance, including risks	5–6 & 12
4.10	Processes for evaluating Board's own performance	5
4.11	Use of precautionary approach	n/a
4.12	Subscription to external economic, environmental and social charters / initiatives	12
4.13	Organisational memberships in associations	14
4.14	List of stakeholder groups engaged by the organisation	14
4.15	Basis for selecting stakeholders	14
4.16	Approaches to stakeholder engagement	14
4.17	Topics raised through stakeholder engagement, and responses	14
<b>Management Approach Disclosures</b>		
EC	Economic	12–13, 30–31 & 34–35
EN	Environmental	12–13 & 22–23 26–31 & 36–39
LA	Labour practices and decent work	16–19
HR	Human rights	20–21
SO	Society	12–13 & 34–35
PR	Product responsibility	14–15

Indicators		Page	Extent of reporting
<b>Economic Performance Indicators</b>			
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	12–13 & 34–35	Full
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	12–13	Full
<b>Environmental Performance Indicators</b>			
EN2	Percentage of materials used that are recycled input materials	22–23	Full
EN3	Direct energy consumption by primary energy source	30–31	Full
EN4	Indirect energy consumption by primary source	30–31	Full
EN8	Total water withdrawal by source	28–29	Full
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	36–37	Full
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	36–37	Full
EN16	Total direct and indirect greenhouse gas emissions by weight	30–31	Full
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	30–31	Full
EN22	Total weight of waste by type and disposal method	26–27	Full
EN23	Total number and volume of significant spills	38–39	Full
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	22–23	Full
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	12–13	Full

Indicators		Page	Extent of reporting
<b>Labour Practices and Decent Work Performance Indicators</b>			
LA1	Total workforce by employment type, employment contract, and region, broken down by gender	16–17	Full
LA2	Total number and rate of new employee hires and employee turnover by age group, gender and region	16–17	Full
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region and by gender	18–19	Partial
<b>Human Rights Performance Indicators</b>			
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening	20–21	Full
<b>Society Performance Indicators</b>			
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	34–35	Full
SO2	Percentage and total number of business units analysed for risks related to corruption	12–13	Full
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes	12–13	Full
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliances with environmental laws and regulations	12–13	Full
<b>Product Responsibility Performance Indicators</b>			
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	14–15	Full



**Kingspan Insulation Ltd**  
Pembridge, Leominster, Herefordshire HR6 9LA, UK

[www.kingspaninsulation.co.uk](http://www.kingspaninsulation.co.uk)

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VAT GB428602456.