



Why insulation matters

**A Summary of our
Sustainability Report
2010**

The role we have to play

At Knauf Insulation we have experienced significant growth over the last decade becoming the world's third largest insulation company. With such growth, our impact on the environment has also grown and with it so has our obligation to manage these impacts responsibly.

The time for growing responsibly is now. An important step in this process is the launch of our first corporate Sustainability Report and this Summary. These publications set out the challenges that we see the building industry facing over the coming decade, how we are evolving our product offering and range to deal with these challenges and finally how we as a company are improving our performance.

Our dedication to responsible growth must be grounded in specific goals, so we have set forth a number of commitments which we have referred to throughout this booklet (see key below) – full details shown on page 9. They focus on enhanced management systems, employee welfare, more sustainable operations and alternative product ingredients. We pledge to compare ourselves to international targets and have in place the mechanism to achieve our ambitions.

Tony Robson

00	Commitment	Commitment number	Descriptor
	Product ingredients		See page 9 for full details

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We are improving how we connect to our employees and stakeholders on the wider issues affecting our business. Please tell us your thoughts on our performance and our reporting so we can learn and improve.

Contact us at:
sustainability@knaufinsulation.com



A glance at performance and achievements so far

Our performance

Lost Time Accident severity rate decreased from 2008 to 2009

In our production plants LTA severity rate decreased from 43 to 29

Our training hours per employee reached on average 19.5hrs

And we are working on how to deliver better training among Knauf Insulation employees

Energy use decreased in 2009 from 2008

Per MWh per tonne of output

Water use

Use was down, discharge was up – we are investigating why this was the case

CO₂ emissions down by 10%

With new renewable energy expected during 2011, we hope to keep improving this figure

Our achievements

Global Insulation Product of the Year 2009

Voted 'best product' at the Global Insulation Conference, which focused specifically on sustainability of the industry

DuBo Award 2009

1st prize for Revolutionary Sustainable Construction Innovations (Netherlands)

Construction Company of the Year 2009

Category Construction Products and Technologies (Poland)

Innovation of the Year 2009 Award

Association of Innovative Entrepreneurship of Czech Republic

Construction Product and Technology of the Year 2009

Bronze Medal (Czech Republic)

'Save the energy' award

In the category 'Best energy saving technology in heat insulation' (Russia)

Our impacts on sustainability

Our impacts fall into three distinct areas: transforming buildings, innovative products and responsible operations.

What follows is a summary of these three main sections of our Sustainability Report 2010. Read in the next few pages how we go beyond being a simple manufacturer of insulation by pushing for a near zero energy built environment (page 2–3), offering products that help customers and architects deliver sustainable buildings (page 4–5) and by changing our manufacturing processes to operate in a more responsible and sustainable way (page 6–9).



Download our full report

www.knaufinsulation.com/en/node/1913

Peak oil

We may have already peaked in fossil fuel extraction and production: it is environmentally and economically sensible to be efficient in energy use.



Higher temperatures over land

The most obvious sign of global warming creates conflict and commercial risk.



Why does insulation matter?

Insulation matters because 40% of energy is used in buildings. That's more than in transport or industry. Yet inefficient buildings are still being constructed even though solutions exist to deliver near zero energy buildings.

Energy use contributes to climate change and undermines energy security: key threats to society and business. We run the risk of being the generation that knew what was needed but did not step up and make a difference. But the task is huge: governments, companies and individuals have to realise the potential from buildings. And so, to play our role, Knauf Insulation is working hard to produce high quality insulation, educate on its correct installation, engage governments and others on the role of insulation and reduce our own energy use.

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Building energy use
See page 9 for full details

460m

The tonnes of carbon dioxide emissions that could be reduced each year from buildings.

€270bn

The cost to the EU of poor energy efficiency.

Note: the above figures are for Europe only

From Venice to Shanghai and from New York to London, our coastal cities face varying degrees of flood risk in the future. Buildings play a crucial role in mitigating this risk.



Thanks to European legislation all new builds across the EU will need to be 'nearly' zero energy by 2020. But this will only stop the problem getting worse. To remove carbon from the built environment almost all existing buildings will need to undergo deep energy efficiency renovation by 2050.

How we're helping make a difference

In the coming years the built environment will change dramatically as requirements for low energy buildings start becoming mandatory. This change will lead to a more sustainable built environment but it will need to be managed correctly.

The 'building chain' will need significant support to deliver low energy buildings that work in practice, not just on paper. Knauf Insulation engages with governments and plays an active role in European efforts to develop standards for real performance of buildings.



HOMESTAR legislation

Meeting with President Obama to discuss pending HOMESTAR legislation



COP 15

Attending the COP 15 in Copenhagen



Our sustainable products are at the heart of sustainable buildings

6 weeks

Approximate pay back time of
GMW 040 (200mm) in pitched roofs.

9 weeks

Approximate pay back time of
RMW 035 (100mm) in external walls.

10 weeks

Approximate pay back time of
EPS 035 (100mm) in external walls.

Our products

Glass Mineral Wool (GMW), Rock Mineral Wool (RMW), Wood Wool (WW), Extruded Polystyrene (XPS), Expanded Polystyrene (EPS) and Extruded Polyethylene (XPE).

Our products are key to a sustainable built environment. They pay back far more energy than is required in their manufacture and are vital in sustainable buildings. So what makes a sustainable product?

Well, first we've taken the time to understand every stage of its manufacturing process through 'life cycle analysis' (LCA). With the results we target environmental improvements in our manufacturing processes. We have committed to undertake LCA studies from all of our plants by the end of 2011.

Second, our products are made from a range of materials including abundant and non-exhaustible resources such as the wood in Wood Wool and stone in RMW and recycled materials such as CD cases in XPS and glass in GMW. Over the last few years we have consistently reduced the amount of finite resources we use, whilst rapidly increasing both renewable content and recycled content.

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Product ingredients and LCA of our products
See page 9 for full details





Find out more about
how sustainable our products are

www.knaufinsulation.com/en/buildings_solutions www.oem.knaufinsulation.com/

Creating innovative solutions



A superior level of sustainability with ECOSE® Technology.

In 2009 we launched our new range of Mineral Wool with ECOSE® Technology, a revolutionary, new, formaldehyde-free binder technology, based on rapidly renewable materials instead of petro-based chemicals. It is free from formaldehyde, phenols, acrylics and no artificial colours, bleach or dyes are added. This technology is a step change in sustainability performance whilst retaining great insulation performance. By eliminating phenol and formaldehyde (PF), process emissions inside the plants have been significantly reduced along with manufacturing emissions to the environment.

04 Commitment

Product ingredients

See page 9 for full details



0%

The amount of phenol and formaldehyde added to Glass Mineral Wool with ECOSE® Technology

85%

In 2010 we had up to 85% recycled content in our Glass Mineral Wool with ECOSE® Technology

Our journey to being a more sustainable business is reliant on responsible manufacturing, employee and community welfare and our environment. As such, we are reviewing our activities, targets, and progress with regard to safety, health, employee welfare, energy and environmental management.

24%

Thanks to the Integrated Management System more accidents are now being recorded, which as expected has pushed up LTA frequency by 24%.

-33%

Severity (how serious the accidents are) decreased by 33%.

Responsible manufacturing

Implementing an Integrated Management System for a better, safer workplace.

Sites are responsible for implementing our Global Health, Safety and Environment Policy, via our Integrated Management System for manufacturing sites. Most plants have Safety Committees, whether it is a legal requirement or not. Our safety reporting system is developing year on year and now includes new revised definitions of accidents from certain operations. Thanks to the Integrated Management System more accidents are now being recorded, which as expected has pushed up LTA frequency by 24%. However, severity (how serious the accidents are) decreased by 33%. We regret that in 2009 we suffered one fatality; that of a contractor. It is critical that we learn from this: within 24 hours all plant managers and those working in similar roles were made aware of the cause of the accident. What we learned from this accident has been integrated into our management systems to help prevent it happening again.

01 02 Commitment

Management approach

See page 9 for full details

From community projects to public hearings, we proactively support programmes that help the needs of the community. In Krupka, Czech Republic, activities have included a combination of support programmes, long-term collaborations with NGOs and ad hoc projects like refurbishment of Krupka Castle walls.



ONE

Knauf Insulation 'Ambassadors'
at the launch event, 2009



People and community

The welfare of our employees and our local communities is key.

Our people

Like the rest of the market Knauf Insulation faced several challenges in 2009–10. But despite a tough economic climate and some job losses in 2009, our future is bright. In 2010 we started to improve our understanding of employees' opinions, improving how we manage our human resources throughout 2009–10 and have committed to global welfare initiatives for 2011.

Our local communities

We operate a range of local projects responding to community needs. Initiatives include local campaigns to get householders to sign up for free insulation and we routinely sponsor local projects: for example, in Germany, Slovenia, and the Czech Republic for local sports and schools, in the USA for the fire department, and in the UK for children's charities and the energy efficiency campaign the Great British Refurb campaign. We aim to be a good neighbour and mostly we get it right, but not always. Our video on neighbour relations shows an honest and balanced account of the experiences of local stakeholders including how Knauf Insulation responded to the issues raised by local communities.

03 Commitment

Employee welfare

See page 9 for full details



Watch the movie at

www.knaufinsulation.com/en/corporate_responsibility

-11%

Carbon intensity
Reduction in total carbon intensity in 2009

126,000

Pallets were recycled in the UK in 2009

+18.3%

Water use intensity
We used less water per tonne produced

Environment

Our environmental management has, in combination with the Integrated Management System, helped us better monitor our energy use, greenhouse gas emissions, materials, waste, water, transport and office environment.

Energy is a key issue for us. Building on some strong success and large savings over the last decade or so, we continue to record a decrease in energy use per tonne of product – with a fall of just under 1% from 2008–09. We use various energy sources across our plants including some renewable power. Overall our carbon intensity dropped by 11% since 2008–09.

We work hard at reducing the amount of waste we produce and also at helping reduce the waste from the packaging of our products. We consistently increase the amount of recycled content used in manufacturing. We understand that the way we purchase haulage services can lead to environmental benefits. We will survey our hauliers and promote responsible transport through procurement practices.

We continue to see water efficiency measures taking effect and in 2009 we used less water per tonne produced (down 18.3%), although in 2009 we discharged 33% more water than in 2008.

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Recycling in manufacturing, Recycling in logistics, Energy in operations and Transport

See page 9 for full details

Our commitment

01 Management approach:

Completing HSE Integrated Management System across Europe and CIS

02 Management approach:

ISO14001 in place in plants across Europe and CIS by end 2011

03 Employee welfare:

New commitments on global welfare schemes in the next reporting period, 2011

04 Product ingredients:

Continue to work to phase out phenol and formaldehyde and to find alternatives to HBCD

05 Product ingredients:

Across our product range continue to find ways to increase use of recycled materials both from post-consumer and post-industrial sources

06 Recycling in manufacturing:

Report recycling rates and set targets for improvement in Europe and CIS

07 Recycling in logistics:

Review of pallet take-back across Knauf Insulation in Europe and CIS

08 Energy in operations:

Identify more opportunities for renewable energy sources

09 Transport:

Report global transport-related energy and carbon performance in 2011

10 Building energy use:

Carry out an audit of our entire building stock with the aim of developing and implementing an energy efficiency refurbishment programme

11 LCA of our products:

To have undertaken LCA from all our plants by the end of 2011

How you can help

Our contribution to sustainability doesn't stop here. We are working continuously to develop a global approach to understanding our sustainability impacts and taking action on the gaps. We will continue to benchmark ourselves on key issues and take appropriate action with our key stakeholders to achieve our ambitions.

Tony Robson

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