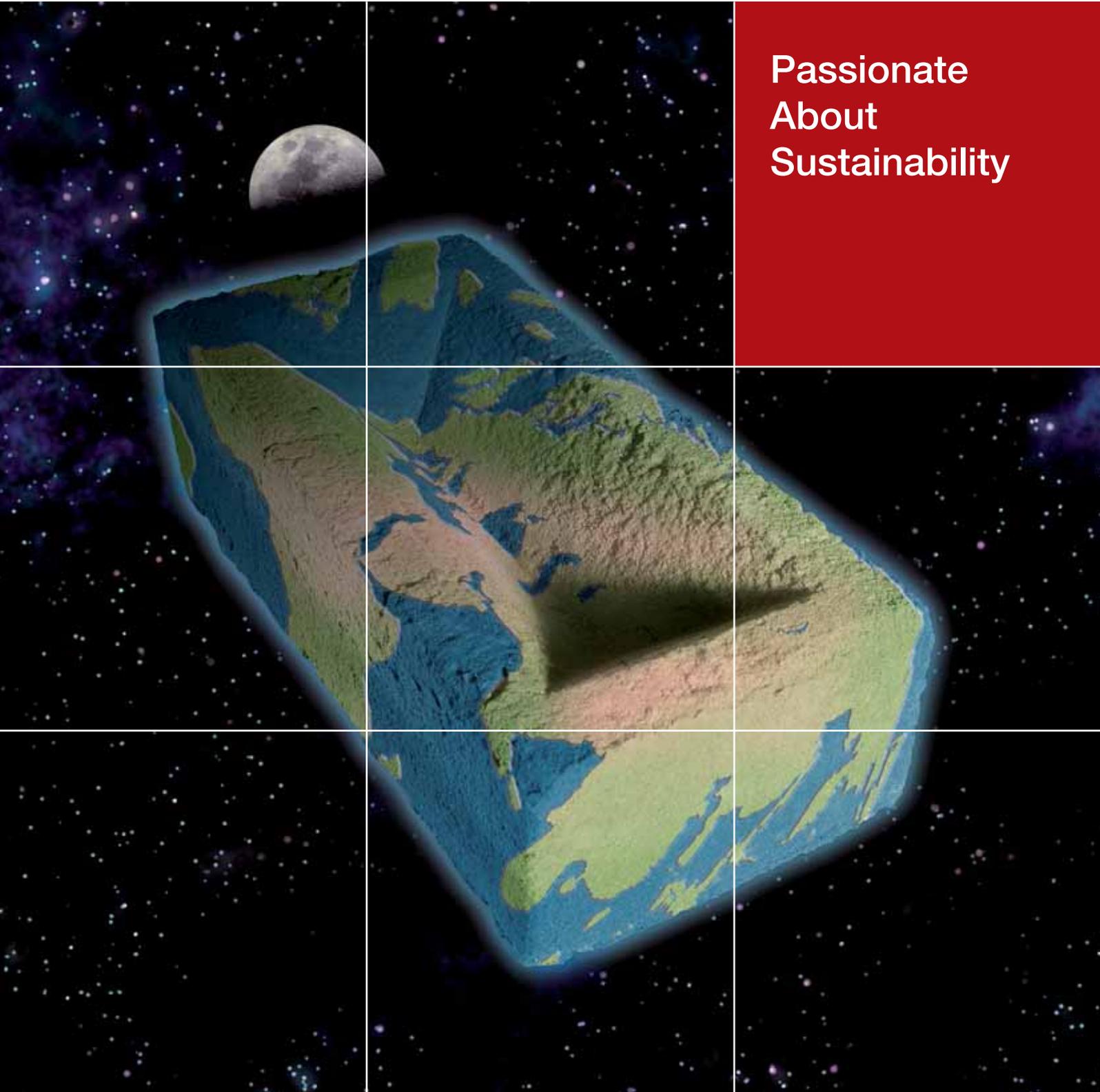


**Passionate  
About  
Sustainability**



Committed to sustainability and the environment.

### Passionate about Sustainability

The concept of sustainability has been adopted by all kinds of companies around the world. It covers a wide range of issues, including reducing energy and water consumption, encouraging economic regeneration and local employment, as well as minimising the impact of construction activities on the local environment.

We are firmly committed to minimising carbon emissions and reducing the impact manufacturing has on the environment.

### Our Mission Statement

We take our role as a responsible member of society seriously and act in accordance with economic, ecological and social principles – in order to remain successful in the future.



### Our Values

-  **Entrepreneurial spirit**
-  **Responsibility**
-  **Diversity**
-  **The human touch**
-  **Passion**
-  **Quality**
-  **Dynamics**



Building  
for the  
future.

### A Sustainable Process

All of our UK factories have achieved the international ISO 14001 standard for Environmental Management after staff and systems were assessed by independent Complete Integrated Certification Services (CICS) environmental auditors. We are proud to say that our Denton works was the world's first brick factory to achieve this standard in 1996.

In addition to the ISO 14001 accreditation, we are also major participants in the Sustainability Strategy for the UK clay brick manufacturing industry promoted by the Brick Development Association (BDA).

We have taken a leading part in the Climate Change Levy Agreements set by the UK government (Defra) which outline targets for achieving set reductions in Specific Energy Consumption (SEC). Our scheme which will run for a duration of 10 years (ending in 2010) involved reducing our SEC by 10% in incremental steps, and we have consistently met these targets. We are also preparing for the follow up scheme running from 2010 to 2014.

Also, we are currently operating in Phase 2 of the European Union Emissions Trading Scheme (EUETS) which runs from 2008 to 2012. This scheme will see us reduce our CO2 levels significantly.

In 2007 we were accredited by the Carbon Trust for all of our original UK factories by the Energy Efficiency Accreditation Scheme. We became one of only a handful of companies in the UK to be awarded this, by demonstrating a reduction in energy usage and showing that we had further systems put in place for reducing and monitoring energy.

We have also installed our own method of promoting sustainability internally by introducing the 'Green Brick Awards', a competition which rewards the achievements of our most environmentally aware factories.

### Our sustainability strategy in the UK encompasses many areas:

- Process
- Product
- The built environment
- Our impact on society
- Working with business partners
- Global consistency
- Future developments



# Brick. Naturally sustainable.

Brick is an integral part of the British environment, with regions characterised by structures built from bricks made using local clay.

An abundant, naturally sustainable raw material, clay is a virtually inexhaustible resource, allowing people to continue building for generations to come.

With the volume and rate of extraction being low compared to other minerals, operations are normally restricted to a limited number of weeks per year, ensuring the impact and rate of change on the landscape is minimised.

## **Natural colour**

Bricks are made from clay from different areas of the country. Local clays give distinctive colours to the brick, and different production methods give varied textures and finishes; making brick a versatile and ever popular construction material.

## **Versatile**

Brick can be manufactured in special shapes and sizes to complement the surrounding environment, especially important in conservation areas.

This additional flexibility allows for refurbishment or creation of the distinctive architectural features and ornamental designs typical of period houses.



### **Strong and durable**

Brick has been around for thousands of years. With our constantly changing weather bringing extremes such as floods and high temperatures, brick is substantially more robust than many alternative building materials.

Resilient to water, wind and fire, brick also has inherent sound insulation properties, reducing the outside noise of modern society.

Brick has a high thermal mass, which retains warmth in cold weather and heats up only slowly in hot conditions enabling easier maintenance of a comfortable temperature.

Brick is solid, permanent and low maintenance, providing enduring beauty and extensive durability.

Our bricks are manufactured to exacting standards and have a long life expectancy, guaranteeing a lifetime of comfort and protection.

### **Little waste**

With modern manufacturing processes and investment in more efficient kilns, little clay is wasted during brick manufacture. Unfired clay is re-used and imperfect fired bricks are crushed and used as aggregates within the construction industry. Materials from Alternative, Recycled and Secondary Sources (MARSS) are increasingly important in the manufacture of many clay bricks. In 2007 13.5% of our total raw material usage were MARSS materials, this resulted in almost 200,000 tonnes of clay being replaced by materials which may otherwise have gone to landfill or been considered to be waste.

### **Environmentally sound**

Bricks have low embodied energy (the amount of energy required to manufacture and supply to the point of use), due to their anticipated lifespan of 150 years.

*“Recent research has shown that the proportion of embodied energy of clay bricks for a modern semi-detached property represents just 1.87% of the total heating requirement for that house over a 150 year lifespan.”*

**Thinkbrick. BDA**



# Brick, the key to sustainable homes.

The BRE's latest *Green Guide to Specification* has assigned the highest possible accreditation A+ to every external wall it rated that contained brick, official proof that brick has a key role to play in meeting the targets set under the Code for Sustainable Homes.

The guide provides designers and specifiers with a user-friendly, yet authoritative guide to making the best environmental choices for materials and components. It is the industry bible for green ratings.

## **A very small footprint**

The Green Guide scores all brick construction A+, the best rating. And it's carbon footprint? The clay brick component of 1 square metre of brickwork produces 28kg of carbon dioxide by the time it is delivered to site. That equates to 0.0001867 tonnes per square metre a year, over 150 years.

In context, the energy used to produce and deliver brickwork for an average semi-detached home is less than 2% of what will be spent heating that home over a lifespan of 150 years. The embodied energy of the clay brick is equal to 0.4% of total domestic energy consumption over a 150 year lifespan.

Brick also has excellent thermal insulation properties, allowing the reduction of energy consumption when heating or cooling your home.

## **An extended lifespan**

The lifespan of brick extends well beyond 150 years. A recent survey of 900 homes found that brick structures can have a lifespan of 500 years and more. Maintenance is minimal. In contrast to other materials, wind and rain and snow will not damage brick. Weather merely mellows it. And, when the time comes to knock down brickwork, it can be recycled on site – and old lime mortar bricks can be cleaned up and used again as bricks.

So as brick ages its looks improve and the embodied energy becomes insignificant.

## **Peace of mind**

In addition, our bricks have excellent sound insulation properties, meeting the Building Regulations Approved Document E for sound insulation and comply with European fire resistance classification category A1 given in EN 13501-1.

Houses built with our bricks give our customers peace of mind and a sound, secure and comfortable home built from a material guaranteed to last.



### Working in Partnership

Brickworks tend to be in rural areas and we are committed to ensuring that this beautiful, natural environment continues to flourish.

We have taken part in government co-ordinated projects to recycle materials and divert large tonnages of material from landfill.

We have helped to develop the Industry Sustainability Strategy and Local Authority Sustainability guidelines and work closely with Local Authorities to develop award-winning environmental projects.

We are working with a number of partners including NISP to develop renewable energy sources for our UK factories. We currently use renewable energy at a number of our sites including our head office.

We are corporate members of 10 of the Wildlife Trusts based in our operational areas and are involved in projects encouraging biodiversity among threatened species such as Lapwings and Bats.



Barratt EcoSmart Show Village, Chorley



- Birmingham and the Black Country
- Cheshire
- Derbyshire
- Devon
- Durham
- Lancashire, Greater Manchester & North Merseyside
- Staffordshire
- Surrey
- Sussex



### Making a difference in Society

Our Brickworks are often an intrinsic part of the local community, offering employment both in the works and supporting associated businesses.

We feel it is important to continue to strengthen these ties and take an active interest in education, supporting local business and educational partnerships.

Our HR policy provides equal opportunities, eases return to work for all our employees and promotes the work of the Shaw Trust (a charity working in this area).

We subscribe to the Ceramic Industry Health and Safety Pledge and have met our targets in reducing work place accidents.





Economic  
success  
in harmony  
with mankind  
and nature.



#### **A Global Philosophy**

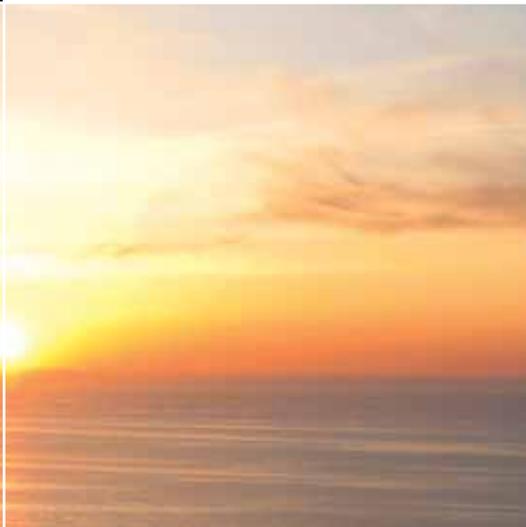
Our responsibility extends across the globe, with our parent company, Wienerberger, involved in many initiatives aimed at a sustainable future.

We joined the UN Global Compact in 2003 – promoting good, corporate citizenship.

We work in partnership with the World Wildlife Fund for Nature (WWF) on a number of joint projects.

€millions donated to a number of relief projects around the world.

Several former clay mining sites have been restored and returned to local authorities with our help.





We are continually reducing our environmental impact.



#### **A Brighter Future**

The popularity of brick as a building material continues and provides a secure and stable future for the industry.

Brick manufacturing is becoming more harmonised with nature due to an increased environmental awareness.

We recognise the need to continually improve our processes and products to meet the needs of changing markets, while continually reducing our environmental impact.

We believe that by prudent use of natural resources and the latest technology to manufacture, we continue to provide environmentally-friendly products that ensure the highest quality residential and commercial environments.

Sustainability is not just a trend; Wienerberger Ltd is committed to providing sustainable solutions, striving for economic success in harmony with people and nature.



# Frequently Asked Questions

**Do you have an Environmental Policy?**

Wienerberger Ltd have an Environmental Policy which is available on the web site. The majority of the operational factories in the UK have had an Environmental Policy in place since 1991.

**Do you operate a certified Environmental Management System?**

All operating sites in the UK have an Environmental Management System independently certified to BS EN ISO 14001 by CICS Ltd. The first such certification was achieved at the Denton factory in 1996 and this has progressively been extended to cover all sites. All certificates are available to download on our web site.

**What is the carbon footprint of the clay bricks that you manufacture?**

The typical carbon footprint for clay bricks manufactured in the UK (including emissions from combustion and process emissions) equates to approximately 28kg CO<sub>2</sub> for the brick component of 1 square metre of masonry. Assuming a service life of 120 years this equates to 0.23 kg CO<sub>2</sub> per square metre per year.

**Do you use “green” electricity?**

Currently, more than 20% of the electricity used at our UK factories comes from renewable sources. We are continually reviewing sources of renewable energy and energy from waste in order to increase this proportion.

**How do you ensure that the brick manufacturing process is energy efficient?**

All UK manufacturing sites are covered by a Climate Change Agreement with UK Government which sets targets for energy reduction in the period to 2010. In the near future this period will be extended to 2014. Additionally the sites have an allocation of Carbon allowances under the EU Emissions Trading Scheme which requires targeted reduction in energy and raw material consumption in order to reduce CO<sub>2</sub> emissions. In 2007 we were accredited by the Carbon Trust for all of our original UK factories by the Energy Efficiency Accreditation Scheme.

**How do you ensure responsible sourcing of raw materials?**

The vast majority of clay raw materials come from our own source quarries. These quarries all operate under Environmental Management Systems independently certified to BS EN ISO 14001 and operate in accordance with the British Ceramic Confederation Code of Practice for Mineral Extraction.

**What form of packaging do you use?**

All our products are packaged using the minimum quantity of material necessary to protect the product during storage and transportation. Wooden pallets are generally only used at specific customer request or for some higher value products. We are continually reviewing and reducing the amount of packaging materials used in conjunction with packaging waste regulations.

**Do your products contain recycled raw materials?**

Many of our products contain recycled materials as part of an industry initiative known as MARSS (Materials from Alternative, Recycled and Secondary Sources). On average this is in excess of 13.5% of the raw material requirement although this varies between product types and manufacturing locations. All raw materials where possible are recycled within the manufacturing process to minimise waste.

**Do you use recycled water in the manufacturing process?**

Many of our manufacturing sites use recycled water collected in adjacent quarries or harvested from rain water. Projects are in place to increase the amount of recycled water used.

**How do you ensure that manufacturing processes do not cause pollution?**

All our UK manufacturing sites require a Permit to operate from the Local Authority under the Pollution Prevention and Control Regulations. These permits require regular monitoring and inspection to ensure that pollution is not caused by our manufacturing operations. Close links are maintained with the Local Authority Environmental Health Departments and the Environment Agency.

**How do you ensure that aspects of Corporate Social Responsibility are addressed?**

We operate Human Resources Policies which ensure that all employees have appropriate employment protection as required by UK Legislation. Consultation with employees is encouraged at all sites and effective links are maintained with approved Trade Union representatives where appropriate.

**How do you ensure that Local Communities are kept informed about your manufacturing activities?**

We encourage open dialogue with the Local Communities at all our UK manufacturing sites. At several of the sites there is a fully constituted Liaison Committee with representation from the local community and relevant representatives of local regulatory bodies which meet on a defined basis. All sites keep a documented record of all complaints or concerns of local residents and the actions taken to remedy any problems.

**How do you ensure that your operations do not endanger wildlife habitats?**

At all our manufacturing sites in the UK we work closely with the local Wildlife Trusts with respect to habitat protection and creation. At sites where protected species exist (eg badgers or great crested newts) we obtain all necessary licences from Natural England to ensure habitats are preserved. A number of our sites contain areas of land which are classified as "Sites of Special Scientific Interest" or have other nature conservancy designations. In all such cases we work closely with Natural England and the Local Authority conservation officers to manage the land in an appropriate manner.

**What information is available about "Life Cycle Analysis" of clay bricks?**

Wienerberger products have been assessed by the Building Research Establishment (BRE) as part of a study to identify the Environmental Profiles of building products. These profiles are then used to create environmental ratings for different forms of masonry construction in the BRE Green Guide. When used with suitable partner materials and construction methods these products satisfy the A+ Rating in the Green Guide.

**How can your products be used to meet the requirements of the Code for Sustainable Homes?**

When used as part of an appropriate masonry design, clay bricks are entirely satisfactory to meet the "Material" requirements of the Code for Sustainable Homes achieving at least Grade A+ according to the BRE Green Guide for Construction Materials. Traditional clay brick masonry is compatible with the requirements of the Code at all levels although to meet Levels 5 and 6 requires particular attention to be paid to wider aspects such as the air tightness of the building.

**Who do I contact about these or other sustainability related issues?**

For further information about our sustainability policies and procedures please e-mail your questions/queries to [sustainability@wienerberger.co.uk](mailto:sustainability@wienerberger.co.uk)



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