



**SUSTAINABILITY &
ENVIRONMENTAL ACCOMPLISHMENTS**

QUALITY ASSURANCE

IBSTOCKS ISO 14001 CERTIFICATE

IBSTOCKS ISO 9001 CERTIFICATE

IBSTOCKS QUALITY & ENVIRONMENTAL POLICY

COSHH (HEALTH & SAFETY)

MAINTENANCE of BRICKWORK

ENVIRONMENTAL & SUSTAINABILITY ACCOMPLISHMENTS

When you choose bricks from Ibstock you are demonstrating your commitment to the environment – not just for today but for generations to come.

Ibstock fully meets the 4 criteria for a sustainable business laid out in the Government's environmental strategy, the Bruntland Commission Report of 2002:

- Social progress that meets the needs of everyone
- Protection of the environment
- Prudent use of natural resources
- Maintenance of stable economic growth

Any 'sustainability' statements must address all 4 criteria.

Ibstock is the **only** brick-maker to publish full and transparent 'warts and all' annual environmental reports since 1999. These (and lots of other environmental info) can all be downloaded from www.ibstock.com

Ibstock was the first UK brick manufacturer to achieve ISO 14001.

All of our factories operate to **ISO 14001**, the International Environmental Management Standard. Ibstock is the only multi site brick-maker to have all of its production (squares, specials, cut & bond etc) in all quality grades covered by ISO 14001.

- ✓ Our bricks are extremely low maintenance and do not require repairing or regular treating with preservatives.
- ✓ In a climate facing increasing extremes of temperature and weather due to global warming, our bricks add to the thermal mass of a building helping to ensure that homes clad with Ibstock bricks will remain comfortable without the need for air conditioning.
- ✓ Our bricks provide protection against the extremes of a changing climate – resisting wind and flood damage as well as insect attack, which will be a problem in future decades.
- ✓ Our bricks are made from natural fired clay, have the choice of over 350 colour and texture options and look beautiful throughout their lifetime.
- ✓ Buildings using our bricks are easy to adapt to future needs.
- ✓ With 23 factories across the country our bricks typically travel just 80 miles from where they are made to where they are used. That reduces traffic congestion and vehicle emissions.
- ✓ Ibstock run a significant number of hybrid and low emission vehicles. Our major haulage contractor (responsible for over two thirds of our transport) uses at least 10% Bio-diesel.
- ✓ Our bricks produce almost no waste. Less than 100g (4oz) per m² is produced during manufacture and this is mostly packaging on purchased materials. They also produce typically less than 3% waste in construction and use.
- ✓ Almost 40% of the water used to make our bricks is recovered 'surface' water and not from drinking quality mains supply, protecting this value resource.
- ✓ We put some carefully selected waste and recycled materials to good use, on average over the range our bricks incorporate about 12% of recycled materials (including water). This helps to divert waste away from landfill – fulfilling a key Government environmental objective.

- ✓ Our fossil fuel generated CO₂ emissions are reducing, over the last 5 years we have saved at least 5% of energy per 1000 bricks. Our clay bricks are now responsible for only 28 kgs of CO₂ per m² of masonry and delivery adds only a further 1 kg per m².
- ✓ Ibstock is part of a consortium that now generates sufficient electricity from landfill gas (a non fossil fuel) to power almost 10 000 homes. Additionally methane released from landfills would be some 20 times more damaging than CO₂ to the environment if not burnt and used in this way.
- ✓ The BRE Green Guide, fourth edition, gives all brick claddings an 'A' rating and a highest 'A+' rating with the longest life expectancy of all external claddings.
- ✓ Ibstock have invested over £55m in efficiency improvements over the past 5 years.

Ibstock bricks are the specifiers' first choice for environmental buildings from BedZed and BowZed to the UK's first 'zero heating carbon' housing scheme.

PACKAGING MATERIALS

There has been a regulatory requirement for number of years for producers of packaged materials to recover and recycle their own packaging. The % for recovery is fixed by the Government to meet its European recovery targets and is steadily increasing year on year.

For Companies like Ibstock, the customer base is far too fragmented and the packaging cannot be easily segregated and kept clean for recycling (unlike supermarkets where it is economical to recover clean segregated packaging). The UK Packaging Regulations uses the Packaging Waste Recovery Note (PRN) system enabling companies to pay for the recovery and recycling of an equivalent amount of packaging and so offset their obligation.

Thus we meet our national recovery and recycling targets by paying an organisation called **Valpak**, the UK's largest Waste Compliance Scheme, to recover an equivalent tonnage of packaging from the UK packaging chain on our behalf. We submit an auditable detailed return for every site each year to Valpak who then send it on to the Environment Agency.

This overall scheme is funding and promoting the entire recycling business in the UK.

THE CODE FOR SUSTAINABLE HOMES

The Code for Sustainable Homes (CSH) has been introduced by the Government to drive a step-change in sustainable home building practice.

The CSH measures the sustainability of a home against design 'categories' rating the whole home as a complete package. One of these categories is 'materials' and their environmental impact.

External wall specifications, when assessed in conjunction with the BRE's Green Guide, are given a points rating. The Green Guide lists ratings from A+ to E and CSH points awarded start at 3 for A+ down to 0 for C, D and E rated specifications. All brick cladding specifications listed in the Green Guide achieve 'A' or the highest 'A+' rating.

QUALITY ASSURANCE - BS EN ISO 9001: 2000

This is an internationally recognised quality management system which assesses an organisations ability to meet Customer, regulatory and the organisations own requirements.

All 23 of Ibstock's factories are accredited to the above standard.

We were the first UK brick manufacturer to achieve registered firm status back in 1984 and we have carried this through to our Design Advisory service which was accredited in 1992. Our products are also Shield-Marked to BS EN 771-1 through CICS, which provides our customers with a seal of reassurance that they are buying the best.

IBSTOCKS ISO 14001 Certificate of Registration



Corporate Certificate of Registration

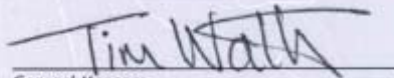
This is to certify that the Environmental Management System of
Ibstock Brick Ltd
Leicester Road, Ibstock, Leicestershire, LE67 6HS

Meets the requirements of
ISO 14001:2004

Scope of Registration
**The Environmental Management System at Ibstock Brick Ltd for the
Winning of Clay, Production of Clay Masonry Units, Administrative
Office Functions and the Operation of an Inert Landfill Site.**

At the Locations defined in Appendices 1 to 24.

Signed for and on behalf of CICS


General Manager

| | | | |
|-------------------------|------------------|------------------------|------------------|
| Certificate No: | 24494 | Current Date of Issue: | 19 November 2008 |
| Original Date of Issue: | 22 November 2005 | Date of Expiry: | 21 November 2011 |

Issue: 1: 11/08



This Certificate of Registration is granted subject to conformance with the conditions of contract governing the registration.

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the organisation.

The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate no.006.

Complete Integrated Certification Services Ltd, Queens Road, Perkhull, Stoke-on-Trent, ST4 7LQ, England

IBSTOCKS ISO 9001 Certificate of Registration

Corporate Certificate of Registration

This is to certify that the Quality Management System of

Ibstock Brick Ltd

Leicester Road, Ibstock, Leicestershire, LE67 6HS

Meets the requirements of


ISO 9001:2008

Scope of Registration

The Design, Development and Manufacture of Clay Bricks, Pavers, and Special Shapes.

The Supply of Architectural and Design Consultancy for Brick, Brickwork, Terracotta and Cast Stone.

Signed for and on behalf of CICS


Authorised Signatory



Certificate No: 21417
Original Date of Issue: 23 October 2003
Issue: 1: 10/09

Current Date of Issue: 15 October 2009
Date of Expiry: 22 October 2012
Page 1 of 4



Ibstock Brick Ltd Quality and Environment Policy

Our Company Mission Statement:

Ibstock will be the hallmark of quality products, people and services, continually improving for customers, employees and shareholders"

This policy applies to all Ibstock Brick Ltd operations:

Ibstock brick Ltd is a UK based manufacturer of clay bricks and associated walling components supplying to the construction market. The principle focus for business is in housing and commercial buildings together with the industrial and architectural sectors.

Our Board believes that its environmental responsibilities are just as important as the quality of products sold to our customers. These issues are therefore integral to the overall objectives and operating principles of the Company.

In the conduct of operations Ibstock Brick Ltd is committed to continuous improvement. We will seek to prevent pollution of the environment by the adoption of processes, practices, materials and control mechanisms which maximize the efficient use of resources. We will seek to reduce emissions to the lowest level consistent with Industry best practice. We recognise that all of our activities interact with the environment and are committed to minimising adverse impacts and improving process efficiency.

Our Company Mission Statement demonstrates our commitment to building upon our reputation for reliable supply of high quality, consistent products and services for our customers.

These objectives will be achieved through our commitment to:

- comply with all relevant legislation and other requirements to which we subscribe
- review the actual and potential impacts of all activities
- strive for continual improvement in performance through setting objectives and targets and developing key performance indicators
- employ best practice to prevent accidents, to prevent pollution, to minimise waste, to maximise the efficient use of resources (materials, fuel, energy) and to ensure effective quality processes and management at every level within the business
- identify and manage key risks and have arrangements in place to respond to all foreseeable incidents and emergencies
- involve employees and contractors in our health and safety, environmental and quality management programmes and provide training to enable them to discharge their responsibilities
- engage in dialogue with suppliers and distributors to encourage their participation in best practice
- produce an annual report to set out progress to employees, regulators, customers, suppliers, neighbours and other interested parties.

Every employee has an individual responsibility to help meet the requirements of this policy. All are invited to contribute ideas for better practice, through their line manager or directly to myself.

Wayne Sheppard
Managing Director

PACKAGED BRICKS & PAVERS HANDLING & COSHH INFORMATION

The Health & Safety at Work Act, Consumer Protection Act and other legislation require us to provide relevant information regarding our products in respect of handling, processing, storage, transportation or disposal without risk to health.

HANDLING & STORAGE

Fired clay brick is an inert material, which presents no risk to health and safety through handling or use, subject to good site practice being followed.

The use of safety clothing such as safety hats, boots and industrial gloves is strongly recommended whenever practicable, to minimise the risks associated with falling objects and sharp edges.

If bricks are hit with a trowel, bolster, scutch, etc., eye protection should be worn as sharp vitrified clay chips may fly.

Individual bricks are grouped together into packs. Packs are heavy and great care should be taken in their handling. Equipment used for lifting packs must be adequate for the weight involved. The weight of the pack varies according to the size of the product and quantity per pack, but the maximum weight of each standard pack from Ibstock Brick Limited factories is 1.67 tonnes approximately.

These packs may be delivered on disposable wooden pallets or they may be held together as a unit by plastic or steel straps. In both cases, the products may be contained by a plastic shrink-wrap, if requested by the customer.

All personnel involved in the handling of packs should be made aware that both steel and plastic straps could snap in certain circumstances, allowing the products to fall:

- **AVOID** **abnormal shocks to the packs**
- **AVOID** **sliding one pack against any face of another pack**
- **NOTE** **straps can deteriorate over a period of time**

Wherever possible, packs should be placed singly on dry, level ground.

It may be possible to stack the packs up to 3 high if they are carefully placed directly on top of each other, without touching adjacent packs, by a competent forklift driver, provided the stacking ground is hard, level and designed to carry the weight. If there are any indications of instability, such as the stack leaning, then the packs should be immediately re-stacked at ground level.

Any pallets supplied by the client to store or transport packs must be very close in size to the pack dimensions and must be of adequate strength to support the weight of product placed on it.

ON SITE HANDLING

The strapping, if provided must never be used to lift packs. Only use the holes in the packs or pallets provided. It is recommended that suitable handling forks should have a width of 90mm and be 1100mm long; it is also recommended that grabs should only be used on solid packs.

It is recommended that brick void packs should always be lifted via the void holes, by a fork lift truck or similar device. This allows for correct distribution of the pack weight under the void layer, which is the layer the straps are supporting. However quite often "side grabs" are used especially on lorries. It is recommended that the grab should ALWAYS pick the pack up on the NON STRAP side i.e. the brick header side and as near to the bottom of the pack as possible. This method ensures the grab has all the weight of the brick pack. The pack should NOT be "grabbed" at the top of the pack because all the brick weight is left supported on the straps.

Some pack configurations (typically a 500 brick all header pack) can be split into 5 @ 100 brick legs or blades. These legs are only stable if stored or moved around while laid flat on a pallet - they must not be moved in the vertical position.

Where packs are lifted more than 1 metre above ground level, a safety cage of adequate dimensions around the pack should be used. All personnel must stand well clear of packs when they are being lifted or moved.

If it is considered necessary to store a brick pack above ground level, it should only be placed on a suitably designed staging with guard rails and brick nets of appropriate height to prevent any bricks falling to lower working areas.

PROCESSING

Straps should be cut by wire cutters and not burst by the application of levered pressure. When cutting straps, the operative should stand to the side of the strap being cut and not in line with that strap. Highly tensioned straps can spring away from the package when tension is released. In accordance with the Personal Protective Equipment At Work Regulations 1992, persons cutting wire strapping under tension MUST wear suitable eye protectors (reference: BS EN 166, 167 & 168).

Strapping around brick packs has sharp edges and suitable gloves should always be worn when handling this material. When straps are cut, protective footwear and overalls should also be worn because bricks may fall from the pack, particularly if the pack has been subjected to irregular handling or storage.

DISPOSAL

Redundant packing materials should be gathered together daily and placed in a waste disposal skips for removal to an approved tip.

The burning of any packaging materials is not normally permitted on sites; some plastic materials may give off harmful fumes. If permission is granted for the burning of wooden pallets great care must be exercised to ensure that environmental pollution controls are not contravened.

COSHH (Control of Substances Hazardous to Health Regulations)

In general, fired clay brick products contain 50 - 70% silica. If powered tools are used to cut this product, substantial amounts of dust may be produced. Depending on the environment and the method of cutting, it is possible that some respirable silica may be generated.

The main effect in humans of the inhalation of respirable silica dust is silicosis. There is sufficient information to conclude that the relative lung cancer risk is increased in persons with silicosis...Therefore preventing the onset of silicosis will also reduce the risk of cancer. Since a clear threshold for silicosis development cannot be identified, any reduction of exposure will reduce the risk of silicosis.

Under the COSHH Regulations, the Workplace Exposure Limit (WEL) for respirable silica is 0.1mg/m³ (from October 2006). The only reliable way to ascertain the levels of individual exposure during cutting is to carry out detailed personal monitoring.

Persons carrying out a dry cutting operation MUST wear suitable respiratory protection. A suitable respirator or disposable mask meeting BS EN 149 (Specification For Filtering Half Masks To Protect Against Particles) is recommended. The use of appropriate respiratory protection by those working near to the dry cutting operation should be considered.

Our advice would be to avoid dry cutting of bricks wherever possible. Wet cutting reduces the amount of dust generated and is a preferable method of cutting.

During the cutting operation, the brick should be firmly held by a mechanical clamp or similar device to prevent movement.

MANUAL HANDLING

An individual standard brick typically weighs 2 to 3 kg (special bricks may weigh more) and presents low risk of a manual handling injury. We recommend that the HSE Information Sheet Guidelines (Construction Sheet Number 37 - 'Handling Building Blocks') be followed.

Repetitive handling of any product including bricks can give rise to Upper Limb Disorders such as muscular strains and sprains. Specialist help should be sought for anyone involved in this type of work.

IT IS THE CUSTOMERS RESPONSIBILITY TO OBTAIN TECHNICAL DATA ON ALL MATERIALS TO BE USED WITH OUR BRICKS & PAVERS.

NO LIABILITY CAN BE ACCEPTED IN RESPECT OF OTHER MATERIALS USED IN CONJUNCTION WITH OUR PRODUCTS.

MAINTENANCE OF BRICKWORK

The following general comments relate to the maintenance and cleaning of brickwork.

1. **Mortar**

Well-built clay brickwork is virtually maintenance free. The brick colour will not fade and the only obvious reparation maybe that after many years, the joint faces may require re-pointing. However, if the correct mix proportions are used appropriate to the exposure factor, this will not be for many years.

2. **Graffiti**

Keeping the brickwork free of graffiti can now be accomplished by the use of a range of graffiti removing materials, which will not harm the brick or the joint. Such materials are readily available from most builders' merchants, and although they are not able to deter potential graffiti artists, they may enable such masonry to be cleaned down effectively.

3. **Efflorescence, Algae, Lichen**

Persistent efflorescence, extensive salt staining from within the brickwork and vegetable growth on the brickwork are due to excessively wet conditions, and, unless the basic problem of water penetration is cured, the staining will repeatedly reappear. In such cases, it is necessary to overhaul faulty flashing and damp proof courses, repair leaking rainwater down-pipes, renew copings, etc.

Particular areas of masonry that can encourage lichen, moss, etc. are free standing boundary walls, adjacent to trees. Low dwarf walls and retaining walls where there is likely to be a constant source of water, can also encourage both seed and algae to adhere to the walling. If this does occur, then the application of a proprietary weed killer will not harm the brickwork, and will rid those areas of masonry which are likely to become saturated, such as below expanses of window, parapets and copings.

4. **General Staining, i.e. dirt**

Staining in brickwork is generally due to external causes but sometimes may result from salts in the brickwork itself. Staining can mar the appearance of brickwork but incorrect cleaning techniques can cause permanent damage. Consequently, any proposed method of cleaning should be tried out in a small unobtrusive area and left for as long as possible, (at least a week or so) to judge the results, before the whole job is tackled.

The techniques given below are intended for 'do-it-yourself' work in removing relatively small areas of staining. A specialist contractor should be engaged for cleaning large areas of brick, for example, general cleaning of industrial grime from a building.

Where chemicals are to be used, the brickwork should always be wetted, but not saturated, with clean water prior to chemical application, to prevent it absorbing the chemicals. After cleaning, the wall should then be rinsed thoroughly with clean water. **DO NOT USE A HIGH PRESSURE HOSE.**

Normally it is preferable to employ wooden scrapers and stiff fibre brushes to avoid damaging the bricks. Adjacent features, such as metal windows and the area at the foot of the wall should be protected from splashing with the chemicals. In places where this is not possible, or where the stain is very localised, most of the cleaning liquids can be applied as a poultice by thickening with inert filler such as talc's, bentonite or powdered chalk.

Many of the chemicals recommended are caustic or poisonous so care should be taken and protective clothing and goggles should be worn. Volatile solvents should only be used indoors under conditions of good ventilation.

Rain splashes at low level can dirty masonry, but the careful use of a weak acid cleaner followed promptly by washing with water, will soon restore rich colour of the individual bricks. Wire brushing is not recommended, as most bricks can become badly scratched and therefore over vigorous cleaning is not recommended, as it can sometimes be to the detriment of the general appearance of the building.

These comments refer to general maintenance and whatever brick is used, if the correct brick type and mortar is specified, in accordance with the durability Table 13 of BS5628: Part 3, then maintenance should be limited and therefore a minimal cost item in the general upkeep of the property.

Additional information is contained within BS8221-1, which refers to general cleaning of building materials with a useful reference on brick masonry reparation and BDA Note 2 on cleaning of brickwork.