

IBSTOCK KEVINGTON CHIMNEYS

IBSTOCK KEVINGTON FASTSTACK CHIMNEY

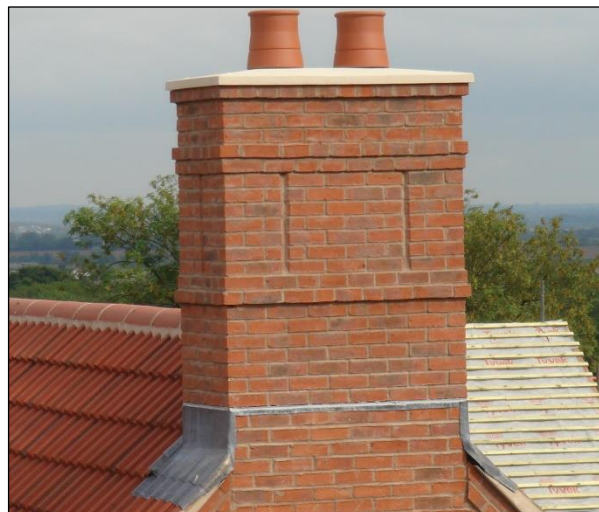
This Agrément Certificate Product Sheet⁽¹⁾ relates to Ibstock Kevington Faststack⁽²⁾ Chimney, a brick-clad, glass-reinforced polyester (GRP) chimney with plinth, flaunchings, apron and pot, for use as a decorative false chimney on tiled or slated pitched roofs in new and existing constructions.

(1) Hereinafter referred to as 'Certificate'.

(2) Faststack is a registered trademark.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



KEY FACTORS ASSESSED

Loading — the product has acceptable resistance to the effects of wind suction up to 1.3 kPa acting on the roof and, in a suitably designed structure, will not affect the stability of the building (see section 6).

Behaviour in relation to fire — the product will not affect the overall fire classification of the roof (see section 7).

Weathertightness — the product, when properly installed, will not affect the weathertightness of the roof (see section 8).

Durability — the product will have a service life in excess of 25 years (see section 10).



The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Third issue: 14 January 2021

Originally certificated on 8 August 2013



Hardy Giesler
Chief Executive Officer

The BBA is a UKAS accredited certification body – Number 113.

The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

Regulations

In the opinion of the BBA, Ibstock Kevington Faststack Chimney, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	A1	Loading
Comment:		The incorporation of the product into a suitably designed roof structure will not affect the structure's stability. See sections 6.1 to 6.4 of this Certificate.
Requirement:	B4(2)	External fire spread
Comment:		The incorporation of the product into a roof classified as unrestricted will not affect the roof's classification under this Requirement. See section 7 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		When detailed correctly, the product will contribute towards a roof satisfying this Requirement. See section 8 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The product is acceptable. See section 10.1 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Durability, workmanship and fitness of materials
Comment:		The use of the product satisfies the requirements of this Regulation. See sections 9 and 10.1 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	1.1(a)	Structure
Comment:		The incorporation of the product into a suitably designed roof structure will not affect the structure's stability under clause 1.1.1 ⁽¹⁾⁽²⁾ of this Standard. See sections 6.1 to 6.4 of this Certificate.
Standard:	2.8	Spread from neighbouring buildings
Comment:		The incorporation of the product into a roof will not affect the roof's classification under this Standard, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ . See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		When detailed correctly, the product will contribute towards a roof satisfying the requirements of this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.8 ⁽¹⁾⁽²⁾ . See section 8 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The product can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	12	Building standards applicable to conversions
Comment:		All comments given for the product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ .

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	23(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The product is acceptable. See section 10.1 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		When detailed correctly the product will contribute towards a roof satisfying the requirements of this Regulation. See section 8 of this Certificate.
Regulation:	30	Stability
Comment:	(a)(b)	The incorporation of the product into a suitably designed roof structure will not affect the structure's stability. See sections 6.1 to 6.4 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		The incorporation of the product into a roof will not affect the roof's classification under the requirements of this Regulation. See section 7 of this Certificate.

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See sections: 3 *Delivery and site handling* (3.3), 11 *General* (11.3) and 12 *Procedure* (12.4) of this Certificate.

Additional Information

NHBC Standards 2021

In the opinion of the BBA, Ibstock Kevington Faststack Chimney, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 2.1 *The Standards and Technical Requirements*, Technical Requirement R3.

Technical Specification

1 Description

1.1 The Ibstock Kevington Faststack Chimney consists of a brick-clad GRP chimney stack, including a base plinth, flaunchings, apron and terracotta chimney pot, for use on roof ridges and slopes and at gable ends. The chimney is available in one- or two-pot versions, clad in bricks matched to the brickwork of the building.

1.2 Ancillary items for use with the product and included within the scope of this Certificate are:

- stainless steel wood screws and washers — 48 mm penetration length, 4 mm diameter and 10 mm head diameter screws and 29 mm diameter stainless steel washers for fixing to wood. The fixings are supplied with the chimney unit
- stainless steel masonry screws, washers and plugs — 60 mm penetration length, 6 mm diameter and 12 mm head diameter screws, 29 mm diameter stainless steel washers and 12 mm diameter and 119 mm long plastic plugs for fixing to gable-end masonry. The fixings are supplied with the chimney unit
- Faststack polyurethane sealant — used to seal lifting-eye seatings and flashing channel.

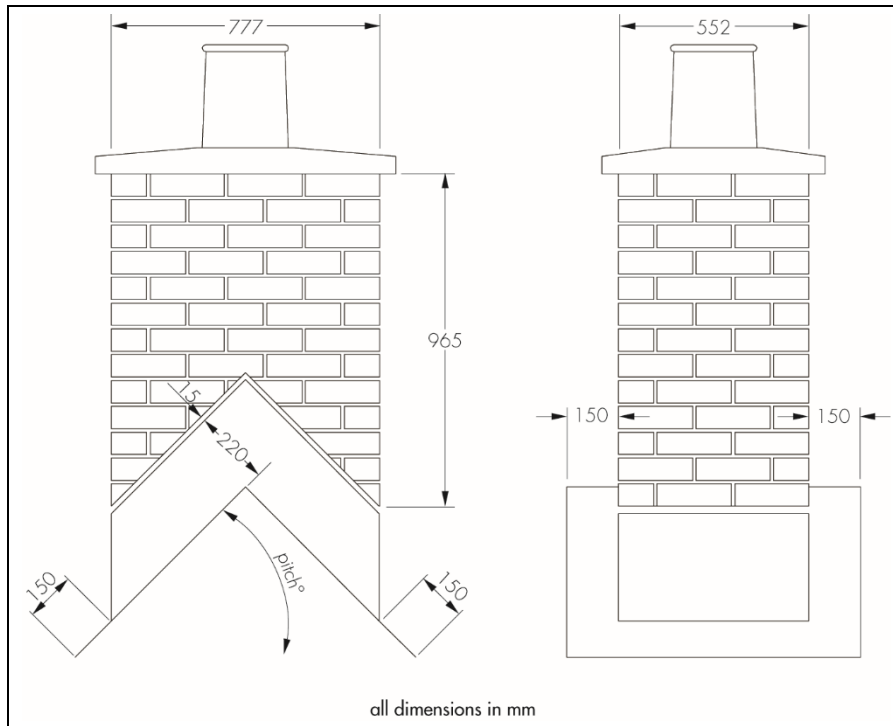
1.3 Other ancillary items associated with installation, but outside the scope of the Certificate, include:

- lead apron flashing
- roof tile underlay
- C16 timber trusses and battens.

1.4 The product is available in the following styles (see Figure 1):

- Faststack Othello — 552 x 440 mm with single pot
- Faststack Aragon — 777 x 552 mm with single pot
- Faststack Hamlet — 665 x 890 mm with two pots
- Faststack Hermia — 890 x 777 mm with single pot
- Faststack Silius — 1002 x 777 mm with single pot
- Faststack Shylock — 1340 x 665 mm with two pots
- Faststack Harcourt — 665 x 665 mm with single pot.

Figure 1 Faststack chimney (Faststack Aragon)



1.5 Chimneys may be rendered but this aspect is outside the scope of this Certificate.

2 Manufacture

2.1 The GRP chimney core, including flaunchings and apron, is formed by hand-laying fibres and resin in a wood and glass fibre mould. Once set, brick slips are measured, cut and glued to the core. Pots are seated over a projecting stub on the cap and fixed with adhesive.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

3 Delivery and site handling

3.1 Chimneys are delivered wrapped in plastic film and secured to pallets with timber supports, strapping and screws.

3.2 Each chimney carries a label bearing the product description, customer's name, job number, drawing number and the BBA logo incorporating the number of this Certificate.

3.3 After pointing on site, chimneys are placed onto the roof by crane using the lifting eyes provided in the chimney capping. Before lifting, it must be ensured that the lifting eyes are securely in place.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Ibstock Kevington Faststack Chimney.

Design Considerations

4 General

4.1 The Ibstock Kevington Faststack Chimney is a decorative false chimney and is satisfactory for use on new-build and existing pitched, slated or tiled roofs with a minimum pitch of 30°, installed either at the ridge or on the slope of the roof.

4.2 The use of the product with an active flue has not been assessed and is outside the scope of this Certificate.

4.3 Roof structures incorporating the product must be designed and constructed in accordance with the relevant clauses of BS 5534 : 2014 and BS EN 1995-1-1 : 2004 and its UK National Annex.

4.4 Roof fixtures such as satellite dishes and television aerials must not be fastened to the product.

5 Practicability of installation

Installation is designed to be carried out by competent carpenters, roofers and slaters/tilers experienced with this type of product.

6 Loading



6.1 Roof structures must be designed by a suitably qualified and experienced individual in order to allow the safe transfer of dead and imposed loads to the ground.

6.2 Dead and imposed loads should be calculated in accordance with BS EN 1991-1-1 : 2002 and BS EN 1991-1-3 : 2003, and their UK National Annexes.

6.3 When installed in accordance with the requirements of this Certificate, the product can withstand dynamic wind pressures not exceeding 1.3 kPa.

6.4 The bond between the GRP chimney core and the brick slips is of adequate strength to withstand the wind loading described in section 6.3.

6.5 The wind uplift forces acting on the chimney are calculated by a suitably qualified and experienced individual in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex, and the installation design confirmed as appropriate on a case-by-case basis.

6.6 The required fixing holes are drilled on site. The correct type (see section 1.2) and number of fixings must be used in each unit. In all styles except the Shylock, 16 fixings are required, and in the Shylock, 24. Fixings must pass through the GRP into the roof structure (see section 12.9).

7 Behaviour in relation to fire



The incorporation of the product into a roof will not affect the classification of the roof.

8 Weathertightness



When installed in accordance with the Certificate holder's instructions and correctly detailed, the product will be weathertight and will not affect the compliance of a roof with the requirements of the national Building Regulations.

9 Maintenance



The product and surrounding roof area must be regularly inspected and maintained to ensure continued performance. Particular attention should be given to the flashing details to ensure that weathertightness is maintained.

10 Durability



10.1 When correctly installed and maintained, the product will have a service life in excess of 25 years.

10.2 As the product is clad with brick slips matched to the brickwork of the building, the colourfastness of the two will be similar.

Installation

11 General

11.1 Installation of the Ibstock Kevington Faststack Chimney must be in accordance with the Certificate holder's instructions.

11.2 Slates and tiles should be installed in accordance with the relevant clauses of BS 5534 : 2014, BS 8000-0 : 2014 and BS 8000-6 : 2013. Where applicable, flashing must be installed in accordance with BS 6915 : 2001.

11.3 When installing the lead apron flashing, the conventional precautions for handling lead, as defined in the *Control of Lead at Work Regulations 2002*, the *Control of Lead at Work Regulations (Northern Ireland) 2003* and the HSE *Approved Code of Practice and Guidance Control of lead at work*, must be observed.

12 Procedure

12.1 The installation process is illustrated in Figure 2.

Figure 2 Installation process



12.2 Prior to lifting into position on the roof, the joints between brick slips are pointed using a cement/lime/sand mix (1:½:4) incorporating a waterproofing admixture. The pointing must fill the joints (typically from 20 to 25 mm) and be finished to a bucket handle joint profile. Advice on suitable admixtures is available from the Certificate holder.

12.3 For ridge-mounted units, the roof is prepared by installing horizontal timber noggings⁽¹⁾, 38 mm wide and 50 mm deep, between the rafters and flush with the top of the rafters, using 8 mm diameter by 75 mm long screws where the chimney will be seated.

(1) A minimum grade of C16 timber should be used.

12.4 Two layers of roof tile underlay are installed on the roof over the area where the chimney will be seated, exceeding the dimensions of the fixing plate by 460 mm on all sides. If the remainder of the roof underlay is to be fitted at a later stage, it must be fully lapped under the chimney underlay to ensure a continuous run.

12.5 Mono-pitch chimneys are located between two trusses and seated on a solid timber platform, designed and constructed to support the weight of the chimney and located at the appropriate height within the roof space. Trusses should be permanently fitted allowing sufficient space for the chimney to pass through during installation. Additional horizontal timbers must be added between the top chords of the supporting trusses to allow fixings through all sides of the apron.

12.6 For gable-end chimneys, the brickwork should be constructed traditionally to the level where the width of the wall corresponds to the internal width of the proposed chimney. At this point, the gable wall brickwork and blockwork should be constructed vertically to a dimension of 215 mm.

12.7 Lifting loops provided with the chimney are screwed into the lifting eyes at the corners of the capping, and the chimney is lifted by crane and placed over the area of roof with the roof tile underlay and rafters.

12.8 The lifting eyes are removed and the holes filled with the plastic plugs. Faststack polyurethane sealant is applied around the plugs to ensure a watertight seal.

12.9 For ridge-mounted units, the chimney is secured to the roof structure by fastening through the site-drilled holes in the apron into the roof structure at 150 mm centres⁽¹⁾ using the fixings described in section 1.2. A total of 16 fixings are used per chimney unit, but the Shylock type requires 24 fixings. For mono-pitch chimneys, two of the fixings are placed along both the rear and front of the base plate. For gable-end chimneys, additional masonry screw and plug kits are provided for fixing to the gable-wall masonry.

(1) The minimum length of penetration must be 32 mm.

12.10 Tiling battens are installed over the roof area and over the chimney's apron. At the overlap, they must be drilled and screwed to the roof structure.

12.11 Slates/tiles are dressed to the sides of the chimney.

12.12 A support fillet is installed at the base of the GRP plinth to ensure that the lead flashing is fully supported and on an uninterrupted downward fall. The lead flashing is dressed in accordance with traditional practice over the row of slates/tiles immediately below the chimney.

12.13 Faststack polyurethane sealant is applied into the flashing channel to a depth of 15 mm. The lead must be dressed to the full depth of the channel and wedged into position before the sealant has cured. Once the lead is in position, the remainder of the channel must be filled with the sealant until flush with the face of the slips.

12.14 On existing constructed roofs, installation of the chimney follows the same process as sections 12.1 to 12.13 following the removal of existing slates/tiles and tiling battens in the area where the chimney will be seated. Following installation of the roof tile underlay and fixing of the chimney, tiling battens are installed over the roof area and chimney's apron. At the overlap, they must be drilled and screwed to the roof structure. The slates/tiles previously removed, or replacement slates/tiles to match the roof, are laid up to the sides of the chimney. Lead flashing is installed and polyurethane applied into the flashing channel as described in sections 12.12 and 12.13. The brick cladding used for the chimney should be agreed for existing construction.

13 Repair

In the event of major damage occurring, the chimney unit must be replaced.

Technical Investigations

14 Tests

14.1 Tests were carried out on the Ibstock Kevington Faststack Chimney and the results assessed to determine:

- dimensions
- cross-breaking strength of GRP capping
 - as made
 - after UV ageing
 - after heat ageing
 - after two-hour water boil
- pull-through strength of screw fixing
- tensile bond strength of brick slips.

14.2 Independent test reports were assessed to determine:

- tensile bond strength of brick slips
 - as made
 - after freeze/thaw
 - after thermal shock
- pull-out strength of lifting eyes
- soak/flood testing of chimney
- pull-off strength of fixed chimney
- pull-off strength of capping
- wind loading on the chimney.

15 Investigations

15.1 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

15.2 Calculations on wind loading of the chimneys were carried out.

15.3 Site visits were conducted to evaluate the ease of installation.

15.4 Fire data for the GRP resin used in the chimney was assessed.

Bibliography

BS 5534 : 2014 + A2 : 2018 *Slating and tiling for pitched roofs and vertical cladding — Code of practice*

BS 6915 : 2001 + A1 : 2014 *Design and construction of fully supported lead sheet roof and wall coverings — Code of practice*

BS 8000-0 : 2014 *Workmanship on construction sites — Masonry — Code of practice — Introduction and general principles*

BS 8000-6 : 2013 *Workmanship on building sites — Code of practice for slating and tiling of roofs and claddings*

BS EN 1991-1-1 : 2002 *Eurocode 1: Actions on structures — General actions*

NA to BS EN 1991-1-1 : 2002 UK National Annex to *Eurocode 1: Actions on structures — General actions*

BS EN 1991-1-3 : 2003 + A1 : 2015 *Eurocode 1: Actions on structures — General actions — Snow loads*

NA + A1 : 15 to BS EN 1991-1-3 : 2003 + A1 : 2015 UK National Annex to *Eurocode 1: Actions on structures — General actions — Snow loads*

BS EN 1991-1-4 : 2005 + A1 : 2010 *Eurocode 1: Actions on structures — General actions — Wind actions*

NA to BS EN 1991-1-4 : 2005 + A1 : 2010 UK National Annex to *Eurocode 1: Actions on structures — General actions — Wind actions*

BS EN 1995-1-1 : 2004 + A1 : 2014 *Eurocode 5: Design of timber structures — General — Common rules and rules for buildings*

NA to BS EN 1995-1-1 : 2004 + A1 2008 UK National Annex to *Eurocode 5: Design of timber structures — General — Common rules and rules for buildings*

16 Conditions

16.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

16.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

16.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

16.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

16.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

16.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.