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t/a IG Masonry Support part of the Keystone Group

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Agrément Certificate

15/5250

Product Sheet 1

IG MASONRY SUPPORT SYSTEMS

IG BRICK SLIP LINTELS

This Agrément Certificate Product Sheet⁽¹⁾ relates to IG Brick Slip Lintels, one piece external wall lintels in stainless steel or powder coated galvanized steel, with a brick slip façade.

(1) Hereinafter referred to as 'Certificate'.

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

Structural performance — the products are suitable for use in walls with clear openings of up to 3600 mm (see Tables 1 to 3 and section 6).

Thermal performance — where the products are used around opening head junctions, they can adequately limit heat loss (see section 7).

Condensation risk — where the products are used around opening heads, the risk of local surface condensation will be minimal (see section 8).

Properties in relation to fire — the products are classified as Class A1 or A2 for reaction to fire, except the Metolux Metofix 3-1 adhesive which is unclassified for reaction to fire, in accordance with BS EN 13501-1 : 2018. The use of the products is restricted in some cases by the national Building Regulations (see section 9).

Durability — provided that the products are designed, installed and used in accordance with this Certificate, they will have a service life of at least 60 years (see section 11).

The BBA has awarded this Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Third issue: 18 May 2022

Originally certificated on 3 September 2015

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.

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Regulations

In the opinion of the BBA, IG Brick Slip Lintels, 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 products are acceptable for use as set out in sections 6.2 to 6.6 of this Certificate.
Requirement:	B4(1)	External fire spread
Comment:		The products are restricted by this Requirement in some cases. See Sections 9.1 to 9.4 of this Certificate.
Requirement:	L1(a)(1)	Conservation of fuel and power
Comment:		Heads of openings in external walls incorporating the products can adequately limit heat loss and the risk of condensation. See sections 7 and 8 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	7(2)	Materials and workmanship
Comment:		The products are restricted by this Regulation. See section 9.3 of this Certificate.
Regulation:	26	CO₂ emission rates for new buildings
Regulation:	26A	Fabric energy efficiency rates for new dwellings (applicable to England only)
Regulation:	26A	Primary energy consumption rates for new buildings (applicable to Wales only)
Regulation:	26B	Fabric performance values for new dwellings (applicable to Wales only)
Comment:		Heads of openings in external walls incorporating the products can adequately limit heat loss and the risk of condensation. See sections 7 and 8 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Durability, workmanship and fitness of materials
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	1.1(a)(b)	Structure
Comment:		The products are acceptable, with reference to clauses 1.1.1 ⁽¹⁾⁽²⁾ and 1.1.2 ⁽¹⁾⁽²⁾ of this Standard. See sections 6.2 to 6.6 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings
Standard:	2.7	Spread on external walls
Comment:		The products are restricted by these Standards, with reference to clauses 2.6.4 ⁽¹⁾⁽²⁾ , 2.6.5 ⁽¹⁾ , 2.6.6 ⁽²⁾ and 2.7.1 ⁽¹⁾⁽²⁾ . See sections 9.1, 9.2, and 9.5 of this Certificate.
Standard:	3.15	Condensation
Comment:		When incorporated in an external masonry cavity wall, the products can satisfy this Standard with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.4 ⁽¹⁾⁽²⁾ and 3.15.5 ⁽¹⁾⁽²⁾ . See section 8 of this Certificate.

Standard:	6.1	Carbon dioxide emissions
Standard:	6.2	Building insulation envelope
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The products can contribute to meeting 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 products 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 products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	29	Condensation
Comment:		The products can contribute to satisfying this Regulation. See section 8 of this Certificate.
Regulation:	30	Stability
Comment:		The products are acceptable as set out in sections 6.2 to 6.6 of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		The product is restricted under this Regulation. See sections 9.1 to 9.3 of this Certificate.
Regulation:	39(a)(i)	Conservation measures
Regulation:	40	Target carbon dioxide emissions rate
Comment:		Heads of openings in external masonry cavity walls incorporating the products can limit heat loss and the risk of condensation. See sections 7 and 8 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: 1 *Description* (1.2), 3 *Delivery and site handling* (3.1 and 3.3) and 13 *General* (13.2) of this Certificate.

Additional Information

NHBC Standards 2022

In the opinion of the BBA, IG Brick Slip Lintels, 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 6.1 *External masonry walls*.

1 Description

1.1 IG Brick Slip Lintels are one-piece external wall lintels, prefabricated from a standard IG Lintel, a perforated steel soffit (7 mm diameter holes at 33 mm centres in both directions), gusset plates and an adhesively bonded brick slip façade (see Figures 1 and 2).

1.2 The products are available in three profiles: BSL (see Figures 1 to 3), HDBSL (see Figure 4) and XHDBSL (see Figure 5). Further details are shown in Tables 1 to 3.

Figure 1 BSL



Figure 2 BSL components

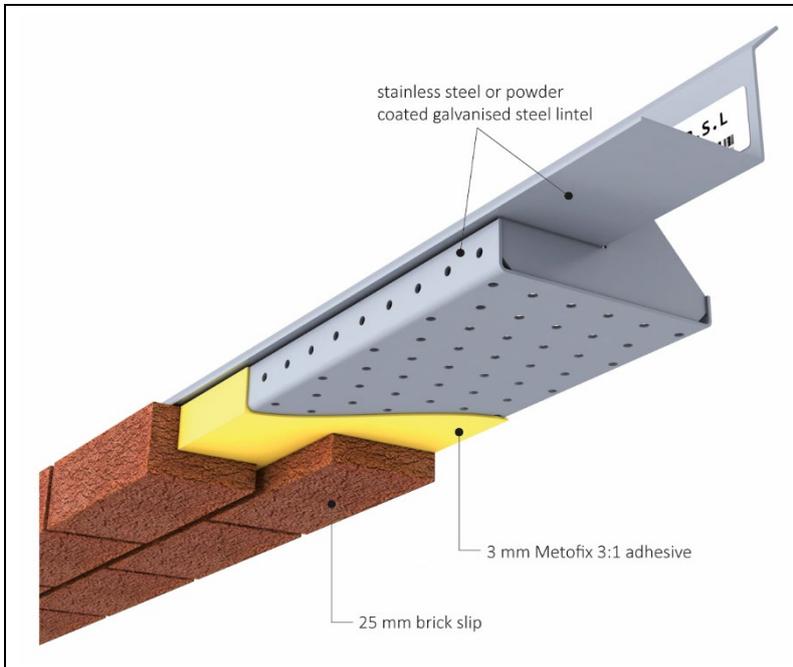


Figure 3 BSL

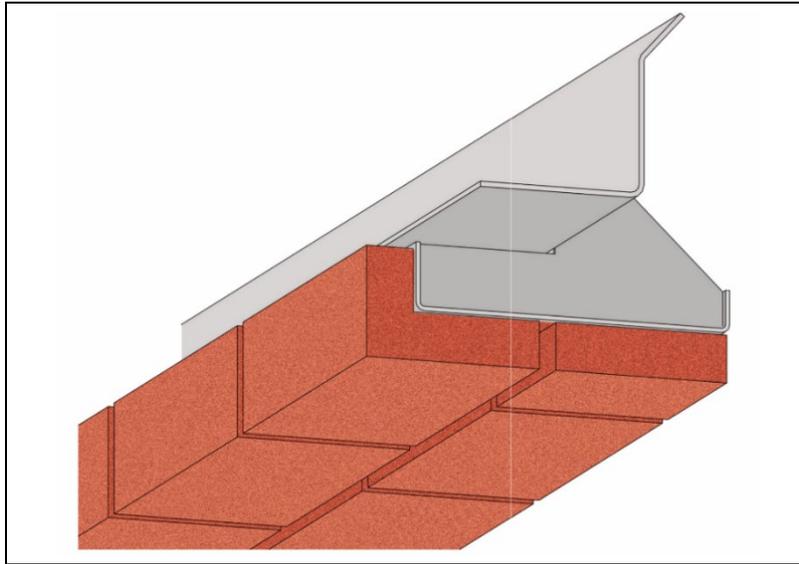


Figure 4 HDBSL

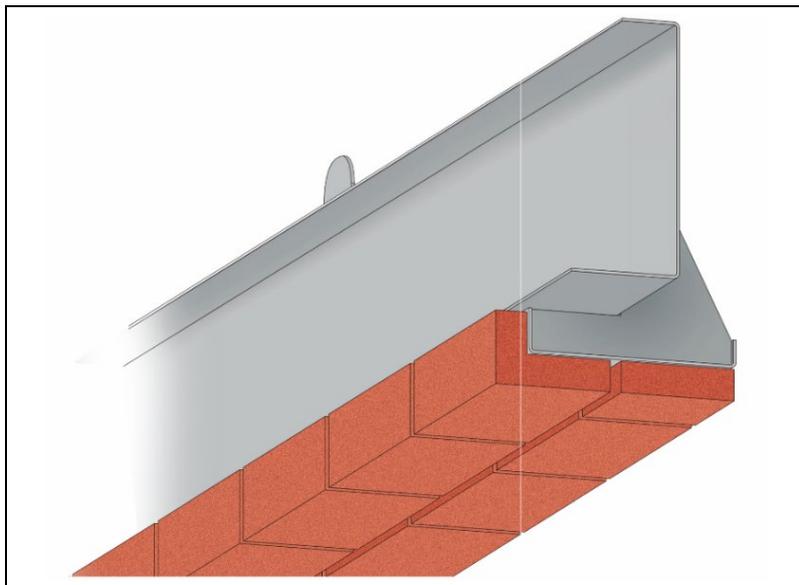


Figure 5 XHDBSL

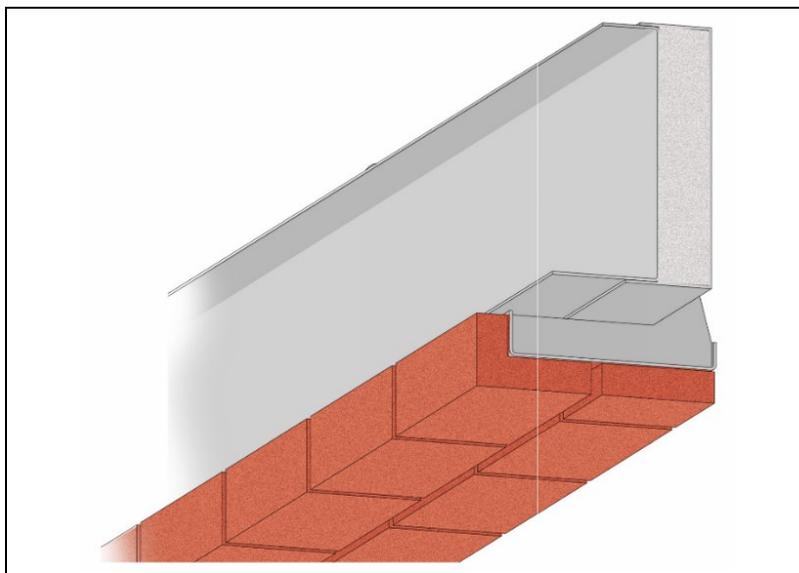
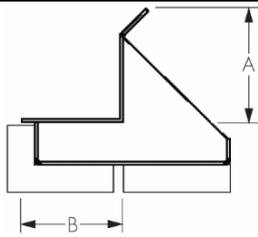
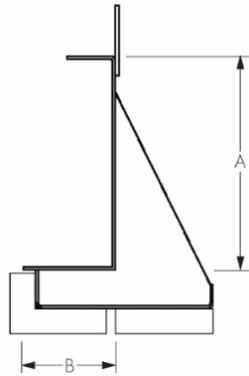


Table 1 BSL Lintel



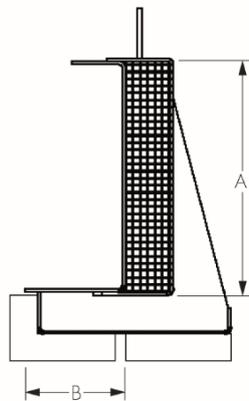
Maximum overall length of lintel (mm)	1500
Maximum length of brick slip zone (mm)	1200
Height of lintel (dimension A mm)	110
Width of lintel (dimension B mm)	95
Thickness of lintel (mm)	3
Mass of steel (kg·m ⁻¹)	12.33
Mass with brick slip (kg·m ⁻¹)	23.73

Table 2 HDBSL Lintel



Maximum overall length of lintel (mm)	2800
Maximum length of brick slip zone (mm)	2500
Height of lintel (dimension A mm)	225
Width of lintel (dimension B mm)	95
Thickness of lintel (mm)	3.2
Mass of steel (kg·m ⁻¹)	17.99
Mass with brick slip (kg·m ⁻¹)	29.39

Table 3 XHDBSL Lintel



Maximum overall length of lintel (mm)	3900
Maximum length of brick slip zone (mm)	3600
Height of lintel (dimension A mm)	225
Width of lintel (dimension B mm)	135
Thickness of lintel (mm)	3.2
Mass of steel (kg·m ⁻¹)	28.36
Mass with brick slip (kg·m ⁻¹)	39.76

Materials

1.3 The lintels, gusset plates and perforated soffit plate are manufactured using either:

- stainless steel to BS EN 10028-7 : 2016, Grade 304 2B (Grade 1.4301/1.4307 or Grade 1.4301/1.4307 HR) or Grade 316 (Grade 1.4401/1.4404)
- galvanized steel to BS EN 10346 : 2015 grade DX51D + Z600 MAC. After fabrication of the galvanized steel the lintel is powder-coated with matt grey polyester with an average thickness 60 µm.

1.4 The brick slip façade is created from 25 mm thick brick slips cut from standard brick masonry units, normally 215 x 65 x 102.5 mm, to BS EN 771-1 : 2011 or BS EN 771-2 : 2011, and bonded to the soffit plate using 3 mm thick Metolux Metofix 3-1 adhesive.

2 Manufacture

2.1 The elements of the lintel range are manufactured from stainless steel or galvanized steel, which is rolled and formed in the factory. The lintels are fabricated by welding.

2.2 Galvanized steel lintels are powder coated following welding.

2.3 The brick slips are fixed to the soffit plate with Metolux Metofix 3-1 adhesive at the manufacturing site.

2.4 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.

2.5 The quality management system of the Keystone Group has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by the British Board of Agrément (Certificate 18/Q059).

2.6 The environmental management system of the Keystone Group has been assessed and registered as meeting the requirements of BS EN ISO 14001 : 2015 by the British Board of Agrément (Certificate 18/E019).

3 Delivery and site handling

3.1 The lintels are delivered to site or to builders' merchants at specified lengths, each carrying a label bearing the Certificate holder's name. The BBA logo incorporating the number of this Certificate is marked on each lintel.

3.2 Reasonable care must be taken during unloading, stacking and storage to avoid damage to the lintels.

3.3 The lintels must be stored off the ground in such a manner as to avoid the risk of either mechanical damage or contamination by corrosive substances.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on IG Brick Slip Lintels.

Design Considerations

4 General

4.1 IG Brick Slip Lintels are satisfactory for use in cavity walls of brickwork and/or blockwork to provide support to the external leaf of cavity walls above windows or door openings.

4.2 It is important for designers, planners, contractors and/or installers to ensure that the installation of the lintels is in accordance with the Certificate holder's instructions and the information given in this Certificate.

4.3 As with any form of cavity wall construction where buildings need to comply with *NHBC Standards 2022*, specifiers should observe the requirements of these Standards and include cavity trays.

4.4 In Scotland and Northern Ireland, and in exposure category 'very severe', the following applies:

- in Scotland, all walls should have a damp-proof course (dpc) built into the inner leaf
- in Scotland, Northern Ireland and areas of 'very severe' exposure to driving rain, the upstand part of the damp-proof protection should be returned into the inner leaf of masonry.

5 Practicability of installation

The products are designed to be installed by a competent general builder, or a contractor, experienced with these types of products.

6 Structural performance

6.1 IG Brick Slip Lintels have adequate strength and stiffness to sustain the maximum design loads given in Table 4, subject to the following conditions:

- size of standard masonry units and clear span are not exceeded
- the specified loads given relate to simply supported lintels laterally and torsionally unrestrained. Therefore, there are no requirements for composite action with, or restraint by, adjacent elements of construction including the supported masonry
- where part of the loading is applied as concentrated loads, each concentrated load must be supported over a length of lintel of not less than 200 mm. In such cases, a case specific design by an appropriately qualified individual must be completed.



6.2 Total uniformly distributed design loads for different spans (clear opening) are shown in Table 4. The loads have been derived from tests supported by calculations in accordance with BS EN 1993-1-1 : 2005, BS EN 1993-1-3 : 2006, BS EN 1993-1-4 : 2006 and BS EN 1993-1-5 : 2006, and their UK National Annexes.

Table 4 Brick Slip Lintels: total uniformly distributed design load/span

Characteristic	Lintel type (see Tables 1-3) ⁽¹⁾		
	BSL	HDBSL	XHDBSL
Maximum clear span (mm)	1200	2550	3600
Thickness of steel component (mm)	3	3.2	3.2
Total uniformly distributed load on lintel (kN) ⁽²⁾	6	22	22

(1) Applies to stainless steel and galvanized steel lintels.

(2) These values are the least of:

- flexural resistance
- shear resistance
- maximum deflection limited to span/1000
- lateral-torsional buckling resistance
- local buckling resistance
- shear buckling resistance
- bearing resistance.

6.3 The following limitations apply:

- the load is from the external leaf only; a separate lintel is used to support inner leaf loads
- the end support bearing length should be a minimum of 150 mm.

6.4 In addition to the requirements specifically referred to in this Certificate, structures of brickwork or blockwork in which the lintel is incorporated must be designed and constructed in accordance with BS EN 1996-1-1 : 2005 and BS EN 1996-1-2 : 2005 or BS EN 1996-3 : 2006 and their UK National Annexes, PD 6697 : 2019 and the technical specifications of the national Building Regulations as appropriate.

6.5 The load-span data shown in Table 4 is valid only for the total uniformly distributed design loads and the lintel clear spans given. For other loading conditions, or spans outside this range, the Certificate holder should be consulted for advice.

6.6 To avoid excessive eccentricities of loading, the lintel must only be used with standard masonry units, ie bricks or blocks with 100 to 102.5 mm widths.

6.7 Guidance for the assessment of loads on lintels in masonry is given in BS EN 845-2 : 2013 and PD 6697 : 2010. If arch action introduced in these Standards is considered, the lintels must be designed by an appropriately qualified design engineer, and the total design load on the lintel will be less than the total of the self-weight of the supported masonry.

7 Thermal performance



7.1 Typical example details containing the products, based on the profile details shown in Figures 3 to 5, and the construction detail shown in Figure 6, were analysed numerically to determine their likely hygrothermal performance, see Table 5.

Figure 6 Installation detail for IG Brick Slip Lintels

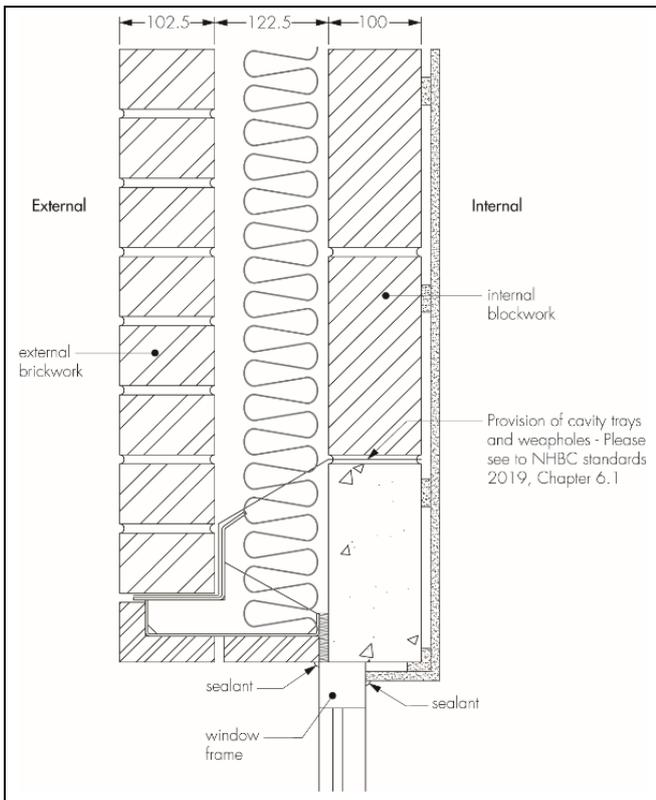


Table 5 Typical psi values for IG Brick Slip Lintels

Lintel unit product	Example galvanised steel Psi-value ⁽¹⁾⁽²⁾⁽³⁾ (W·m ⁻¹ ·K ⁻¹)	Example stainless steel Psi-value ⁽¹⁾⁽²⁾⁽⁴⁾ (W·m ⁻¹ ·K ⁻¹)	Default Psi-value ⁽⁵⁾ (W·m ⁻¹ ·K ⁻¹)
BSL	0.070	0.053	1.0
HDBSL	0.071	-	1.0
XHDBSL	0.073	0.051	1.0

(1) Assumes 50 mm window frame which overlaps the cavity by 38 mm.

(2) Wall construction:

- 102.5 mm brickwork ($\lambda = 0.77 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$)
- 150 mm cavity width, comprising 50 mm unventilated cavity ($R = 0.183 \text{ m}^2\cdot\text{K}\cdot\text{W}^{-1}$) and 100 mm insulation ($\lambda = 0.023 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$)
- 100 mm blockwork ($\lambda = 0.11 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$).

(3) 12.5 mm plasterboard internal finish ($\lambda = 0.21 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$) to 15mm air cavity ($R = 0.17 \text{ m}^2\cdot\text{K}\cdot\text{W}^{-1}$) with 20 % plaster dabs ($\lambda = 0.57 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$).

(4) 13 mm plaster internal finish ($\lambda = 0.57 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$).

(5) Where a junction detail has not been calculated in accordance with BS EN ISO 10211 : 2017 and BRE Report BR 497 : 2016, the default value from Table 5 must be used.

7.2 If designed appropriately, lintel junctions will adequately limit excessive heat loss and allow use of the following psi values in carbon emissions rate calculations. Detailed guidance in this respect, and on limiting heat loss by air infiltration, can be found in the documents referred to in section 8.

7.3 For other junction details, the linear thermal transmittance and temperature factor should be calculated in accordance with BS EN ISO 10211 : 2017, following the guidance in BRE Report BR 497 : 2016.

8 Condensation

Surface condensation



Constructions described in section 7.2 will achieve a surface temperature factor (f_{Rsi}) in excess of 0.90, which can be compared to the critical temperature factors (f_{CRsi}) in BRE Information Paper IP 1/06 for the relevant building type. The risk of surface condensation is low when the f_{Rsi} is equal to or greater than the f_{CRsi} . The products can therefore contribute to limiting the risk of surface condensation and mould growth in most building types. For other constructions, the temperature factor (f_{Rsi}) must be established by numerical modelling (see section 7.3).

9 Properties in relation to fire



9.1 Galvanized steel and stainless steel profiles, and brickwork with less than 1 % organic content can be considered to be class A1 reaction to fire without testing, in accordance with BS EN 13501-1 : 2018.

9.2 Metolux Metofix 3-1 adhesive is unclassified for reaction to fire, in accordance with BS EN 13501-1 : 2018.



9.3 In England, Wales and Northern Ireland, the products may be used on buildings at any proximity to a boundary. For buildings with a storey more than 18 m above the ground, designers should consider the impact on the risk of fire spread over the wall.



9.4 The products should not be used on buildings in England and Wales that have a storey at least 18 m above ground level and contain: one or more dwellings, an institution, a room for residential purposes (excluding any room in a hostel, hotel or boarding house), student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools.



9.5 In Scotland, the products may be used on buildings with no storey at a height of more than 11 m above the ground and more than 1 m from the boundary. With minor exceptions, the products should be included in calculations of unprotected area.

10 Maintenance

The lintels do not require maintenance. However, the brick finish may become soiled over time. For normal soiling, the surface may be cleaned using a hot water/household detergent mix, applied with a suitable cleaning pad or sponge. For more difficult chemical soiling, the advice of the Certificate holder should be sought.

11 Durability



11.1 Providing IG Brick Slip Lintels are designed and installed in accordance with this Certificate they will have a service life of at least 60 years.

11.2 The brick slips will have an equivalent durability to the bricks from which they were cut (see section 1.4).

12 Reuse and recyclability

The steel components of the products are readily recyclable.

Installation

13 General

13.1 Typical installation details for IG Brick Slip Lintels are shown in Figures 8 and 9.

13.2 The products can generally be manhandled, except for the longer span lintels which incorporate lifting lugs for mechanical handling equipment. Protective gloves should be worn when handling the products.

13.3 Lintels must be installed with at least 150 mm end bearing, and be fully bedded on bricklaying mortar.

13.4 Weep-holes should be provided in the outer leaf above the lintel to drain moisture from the cavity. A minimum of two weep-holes should be provided per lintel. For fair-faced masonry, weep-holes should be provided at centres not greater than 450 mm.

13.5 Mortar joints in exposed masonry should be weather-struck in severe or very severe exposure zones.

13.6 Precautions must be taken to prevent mortar dropping through the cavity onto the lintel and obstructing the weep holes.

13.7 The lintels are supplied with one additional brick per opening width. This allows the installer to match the lintel with the brick bonding of the wall (see Figures 7 to 9).

13.8 The brick slips should be pointed using the same mortar as the rest of the brickwork, but only after the full load has been applied to the lintel.

Figure 7 Typical front view of an IG Brick Slip Lintel

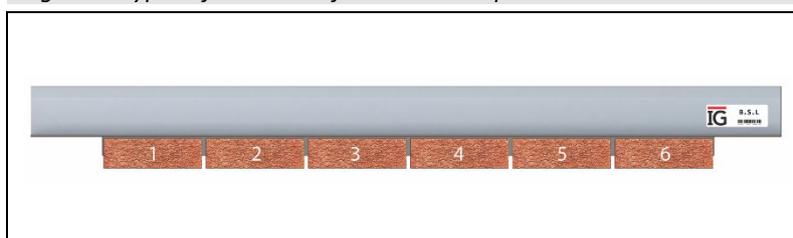


Figure 8 IG Brick Slip Lintel installed on full brick coursing

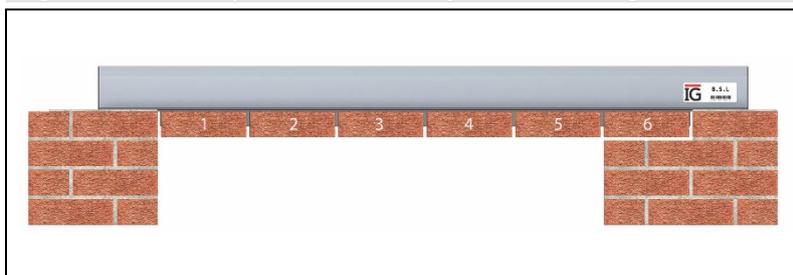
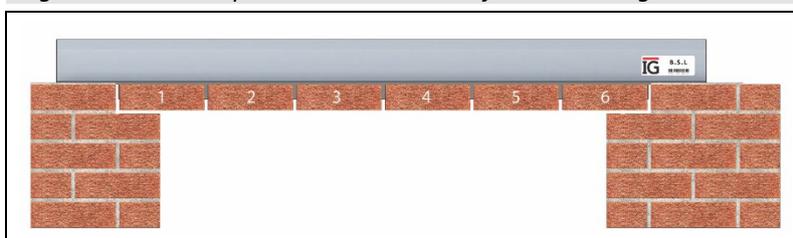


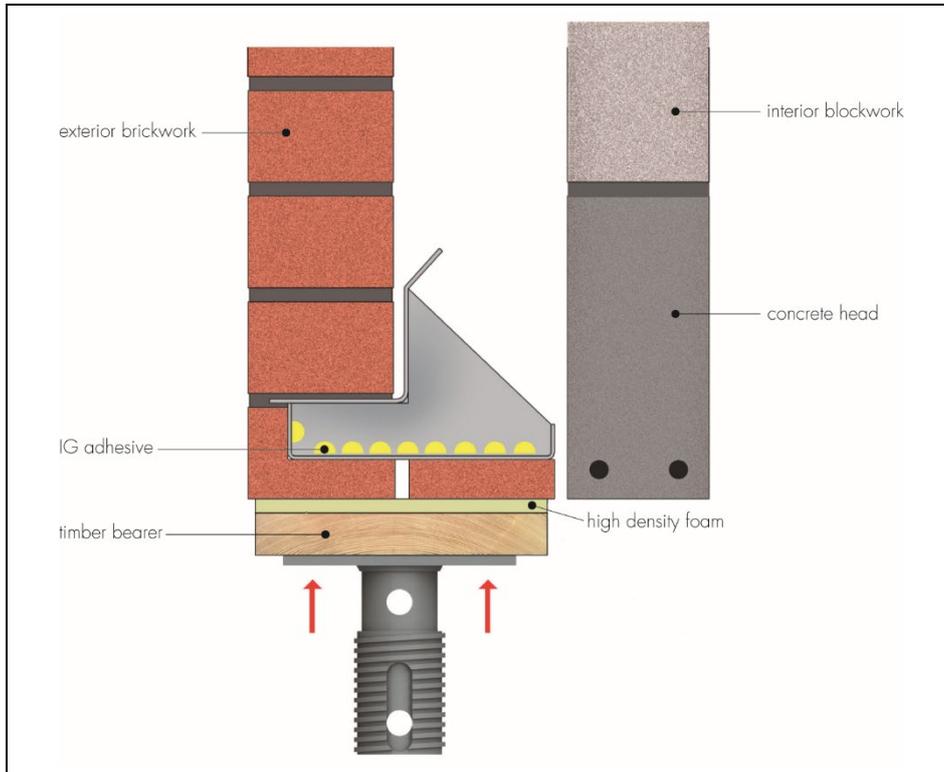
Figure 9 IG Brick Slip Lintel installed on half-brick coursing



13.9 Five courses of bricks should be built over the lintel and allowed to cure. Subsequent lifts should not exceed 1500 mm, with 1-2 days curing between lifts.

13.10 Where required, propping of a brick slip lintel should be provided at a maximum of 1200 mm centres using suitable props, such as a horizontal timber bearer faced with dense foam which should be in contact with the brick slips (see Figure 10).

Figure 10 Method of propping an IG Brick Slip Lintel in a typical wall construction



Technical Investigations

14 Tests

Tests were carried out on the products and the results assessed to determine:

- bond strength after accelerated ageing
- integrity of the bond at maximum design deflection.

15 Investigations

15.1 An assessment was made of data relating to:

- calculations to establish load-span
- calculations to establish minimum temperature factors and the Ψ values of typical constructions incorporating the products, undertaken to BRE Information Paper IP 1/06
- comparison of steel densities and yield strengths
- durability
- practicability of installation.

15.2 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.

Bibliography

BRE Information Paper IP 1/06 *Assessing the effects of thermal bridging at junctions and around openings*

BRE Report BR 497 : 2016 *Conventions for Calculating Linear Thermal Transmittance and Temperature Factors*

BS EN 771-1 : 2011 + A1 : 2015 *Specification for masonry units — Clay masonry units*

BS EN 771-2 : 2011 *Specification for masonry units — Calcium silicate masonry units*

BS EN 845-2 : 2013 + A1 : 2016 *Specification for ancillary components for masonry — Lintels*

BS EN 1993-1-1 : 2005 + A1 : 2014 *Eurocode 3. Design of steel structures — General rules and rules for buildings*
NA + A1 : 2014 to BS EN 1993-1-1 : 2005 + A1 : 14 UK National Annex to *Eurocode 3 — Design of steel structures. General rules and rules for buildings*

BS EN 1993-1-3 : 2006 *Eurocode 3 — Design of steel structures — General rules — Supplementary rules for cold-formed members and sheeting*

NA to BS EN 1993-1-3 : 2006 UK National Annex to *Eurocode 3 — Design of steel structures. General rules. Supplementary rules for cold-formed members and sheeting*

BS EN 1993-1-4 : 2006 + A1 : 2015 *Eurocode 3 — Design of steel structures — General rules — Supplementary rules for stainless steels*

NA + A1 : 15 to BS EN 1993-1-4 : 2006 + A1 : 2015 UK National Annex to *Eurocode 3: Design of steel structures — General rules — Supplementary rules for stainless steels*

BS EN 1993-1-5 : 2006 *Eurocode 3. Design of steel structures. Plated structural elements*

NA + A1 : 2016 to BS EN 1993-1-5 : 2006 UK National Annex to *Eurocode 3 — Design of steel structures — Plated structural elements*

BS EN 1996-1-1 : 2005 *Eurocode 6: Design of masonry structures — General rules for reinforced and unreinforced masonry structures*

BS EN 1996-1-2 : 2005 *Eurocode 6: Design of masonry structures — General rules — Structural fire design*

BS EN 10028-7 : 2016 *Flat products made of steels for pressure purposes — Stainless steels*

BS EN 10346 : 2015 *Continuously hot-dip coated steel flat products for cold forming — Technical delivery conditions*

BS EN 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*

BS EN ISO 9001 : 2015 *Quality management systems — Requirements*

BS EN ISO 10211 : 2017 *Thermal bridges in building construction — Heat flows and surface temperatures. Detailed calculations*

BS EN ISO 14001 : 2015 *Environmental management systems — Requirements with guidance for use*

PD 6697 : 2019 *Recommendations for the design of masonry structures to BS EN 1996 -1 -1 and BS EN 1996 -2*

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.