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Agrément Certificate
93/2935
Product Sheet 1

FIRE PROTECTION SYSTEMS

GLASROC F FIRECASE

This Agrément Certificate Product Sheet(1) relates to Glasroc F FireCase , a non-combustible glass fibre-reinforced gypsum board for use as part of a frameless encasement system providing up to two hours fire protection to structural steel sections.

(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

Performance in relation to fire — the product has a reaction to fire classification of A1 as defined in BS EN 13501-1 : 2007 and can provide up to two hours fire resistance when tested in accordance with BS EN 13381-4 : 2013 (see section 6).

Strength — the product has sufficient strength to resist the loads likely to be encountered in service (see section 7).

Durability — under normal service conditions and provided the product is used in accordance with this Certificate and the Certificate holder's instructions, it will have a service life equal to that of the building in which it is installed. (see section 9).

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

Hardy Giesler
Chief Exceutive Officer

Date of Third issue: 3 September 2021

Originally certificated on 21 September 1993

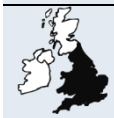
Certificate amended on 18 September 2026 to update the accreditation status.

This Certificate is not issued under accreditation
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, Glasroc F FireCase, 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:	**B2(1)(a)(b)**	**Internal fire spread linings**
Comment:		The product is unrestricted by this Requirement. See section 6 of this Certificate.
Requirement:	**B3(1)(2)(3)(4)**	**Internal fire spread structure**
Comment:		The product will contribute to satisfying this Requirement. See section 6 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The product is acceptable. See section 9 and the *Installation* part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)(2)**	**Durability, workmanship and fitness of materials**
Comment:		The product can contribute to a construction satisfying this Regulation. See sections 8 and 9 and the *Installation* part of this Certificate.
Regulation:	**9**	**Building standards applicable to construction**
Standard:	2.1	Compartmentation
Standard:	2.2	Separation
Comment:		The product is unrestricted by these Standards, with reference to clauses 2.2.1(1), 2.2.2(1)(2), 2.2.3(1)(2) 2.2.4(1)(2), 2.2.5(1) (2), 2.2.6(1), 2.2.7(1)(2), 2.2.8(1), 2.2.10(1), 2.1.13(2). See section 6 of this Certificate.
Standard	2.5	Internal linings
Comment:		The product can contribute to walls and ceilings satisfying the requirements of these Standards, with reference to clause 2.5.1(1(2). See section 6 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:		Comments in relation to 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) (iii)(b)(i)**	**Fitness of materials and workmanship**
Comment:		The product is acceptable. See section 9 and the *Installation* part of this Certificate.
Regulation:	**34(a)(b)**	**Internal fire spread linings**
Comment:		The product is unrestricted by this Regulation. See section 6 of this Certificate.
Regulation:	**35(1)(2)(3)(4)**	**Internal fire spread structure**
Comment:		The product will contribute to satisfying the requirements of this Regulation. See section 6 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) and 3 *Delivery and site handling* (3.2) of this Certificate.

Additional Information

NHBC Standards 2021

In the opinion of the BBA, Glasroc F FireCase, 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 9.2 *Wall and ceiling finishes.*

CE marking

The Certificate holder has taken the responsibility of CE marking the product in accordance with harmonised European Standard BS EN 15283-1 : 2008.

Technical Specification

1 Description

1.1 Glasroc F FireCase is a non-combustible glass fibre-reinforced gypsum board, for use as part of a frameless encasement system for structural steel sections.

1.2 The board is square-edged with a smooth surface on the face side. A range of board sizes is available, and nominal board dimensions and weights are given in Table 1.

Table 1 Nominal board dimensions and weights

Characteristic (unit)	Board thickness (mm)			
	15	**20**	**25**	**30**
Board width (mm)	1200	1200	1200	1200
Board length (mm)	2400	2000	2000	2000
Board density ($kg \cdot m^{-3}$)	850	850	850	850
Weight per unit area ($kg \cdot m^{-2}$)	12.75	17.00	21.25	25.50
Total board weight (kg)	36.72	40.80	51.00	61.20
Board thickness (mm)	15	20	25	30

1.3 Ancillary items for use with the product, but outside the scope of this Certificate, are:

- Gypframe FEA1 steel angle — 25 by 25 mm, 0.5 mm thick and 2900 mm long
- Glasroc F FireCase screws — 40, 50, 58 and 70 mm long
- Gyproc Jointing products (Gyproc Joint Filler, Gyproc QuickSand, Gyproc ProMix Lite)
- Gyproc Drywall Metal Angle Bead
- Thistle MultiFinish, Thistle BoardFinish or ThistlePro PureFinish plaster (or paint).

2 Manufacture

2.1 The product is manufactured by incorporating a tissue of glass fibre immediately below the surface of a gypsum core reinforced with glass fibre rovings and paper pulp.

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.

2.3 The management system of Saint-Gobain Construction Products UK Limited (t/a British Gypsum) has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 and BS EN ISO 14001 : 2015 by BSI Management (Certificates EMS 550533 and 543324 respectively).

3 Delivery and site handling

3.1 The product is delivered to site in stacks wrapped in polythene, on wooden pallets. The product name, shift details, date of manufacture and thickness of board are printed on the underside of the board and on a label.

3.2 The product should be stored flat on a dry, level surface, preferably inside a building and protected from damp and weather. The boards should be stacked, smooth faces together, not exceeding 1m in height. Information on handling and storage practices is detailed in British Gypsum's *White Book*.

3.3 Dry materials, such as jointing materials, must be stored in a cool, dry place and protected from moisture. Metal components must be stored in dry conditions.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Glasroc F FireCase.

4 Use

4.1 Glasroc F FireCase is satisfactory for use as part of a frameless encasement system for steel columns, beams and joists on three or four sides, providing up to two hours fire resistance.

4.2 The product may be used for structural steel I-sections with a section factor A/V (Hp/A) max 335 m^{-1}, calculated on the basis of three- or four-sided protection web depths ≤ 600 mm. For exact requirements, please contact the Certificate holder for advice.

4.3 When Glasroc F FireCase is used to provide four-sided protection to columns (see Figure 1), boards are fixed to each other. When it is used for three-sided protection of columns and beams, steel angles (see Figure 2) must be used.

Figure 1 Example of a four-sided column protection

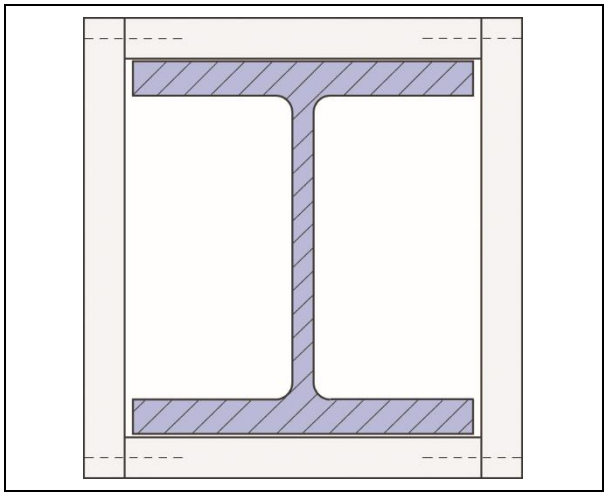
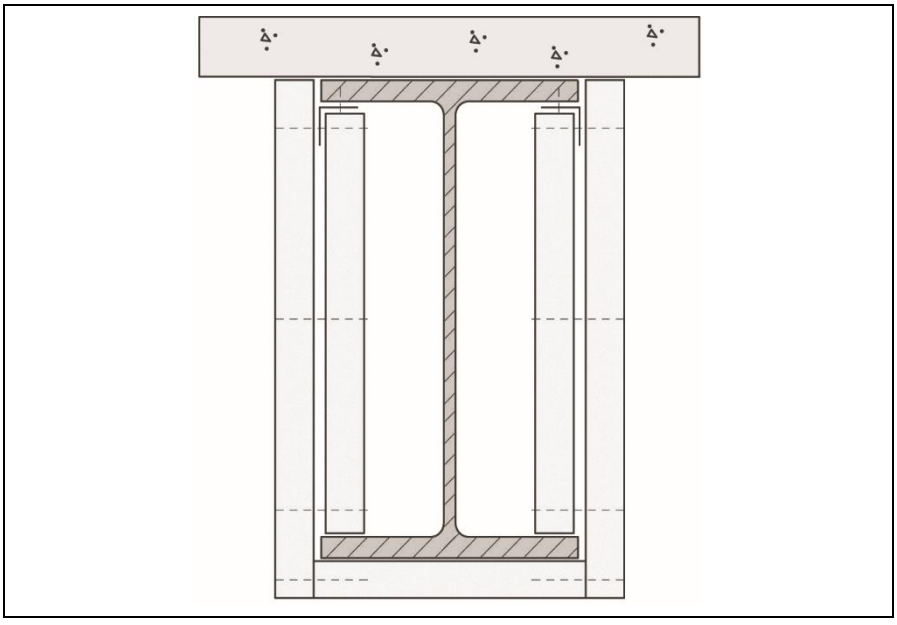


Figure 2 Example of a three-sided beam protection incorporating steel angles



4.4 When installed, Glasroc F FireCase can be jointed and finished in the same manner as conventional plasterboard, using Gyproc Jointing products (Gyproc Joint Filler, Gyproc QuickSand, Gyproc ProMix Lite) and Thistle MultiFinish, Thistle BoardFinish or ThistlePro PureFinish plaster (or paint), respectively. These are outside the scope of this Certificate.

5 Practicability of installation

The product is designed to be installed by competent installers experienced with this type of product.

6 Performance in relation to fire



6.1 The product has a reaction to fire classification of A1[(1)] as defined in BS EN 13501-1 : 2007.

(1) Test report reference 191498, issued by MPA Hannover. A copy of the test report is available from the Certificate holder.

6.2 The product may be used to protect structural steel where 30 to 120 minutes fire resistance is required. The amount of resistance provided is dependent on the thickness of the board and the size of the structural member being protected.

6.3 Appraisals[(1)] of the product's fire resistance, conducted in accordance with BS EN 13381-4 : 2013, gave the cladding selection charts shown in Figures 3 and 4.

(1) Test report references BTC 20760FA, BTC 20866FA, BTC20868FA and BTC 21132FA, issued by The Building Test Centre. Copies of the test reports are available from the Certificate holder.

6.4 The product has been the subject of a number of classification reports[(1)] to BS EN 13501-2: 2016. The results are applicable to a range of constructions, thicknesses, steel section factors (A/V) and temperatures. The Certificate holder should be contacted for details. Specifiers must satisfy themselves that the detailed specification of any construction under consideration is covered by the scope of any report relied on; if in doubt, specialist advice should be sought from an appropriately experienced and competent individual.

(1) Test report references BTC 21179FC, BTC 20872FC, BTC 20870FC and BTC 20871FC, issued by The Building Test Centre. Copies of the test reports are available from the Certificate holder

Figures 3 Cladding selection chart for four-sided column protection at 550°C

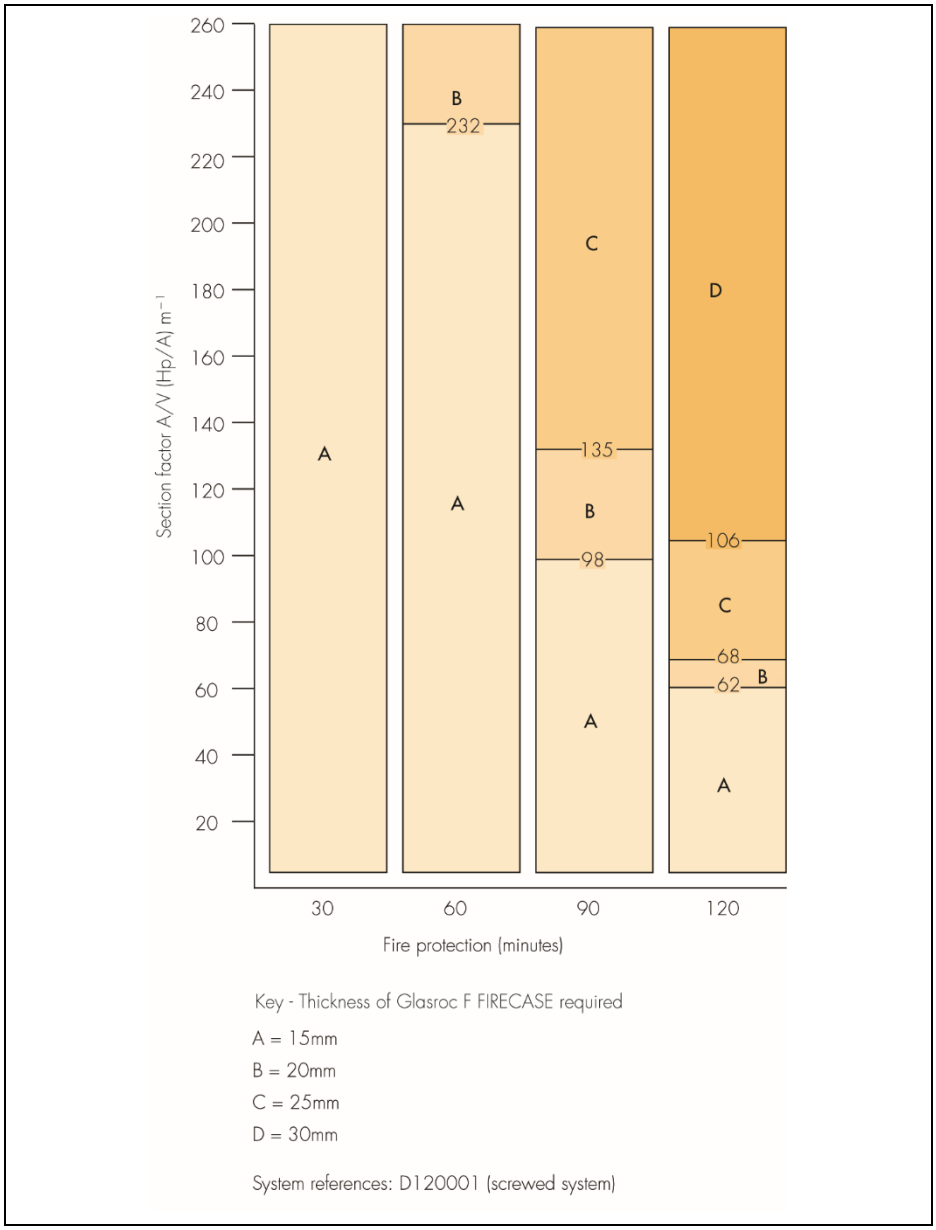
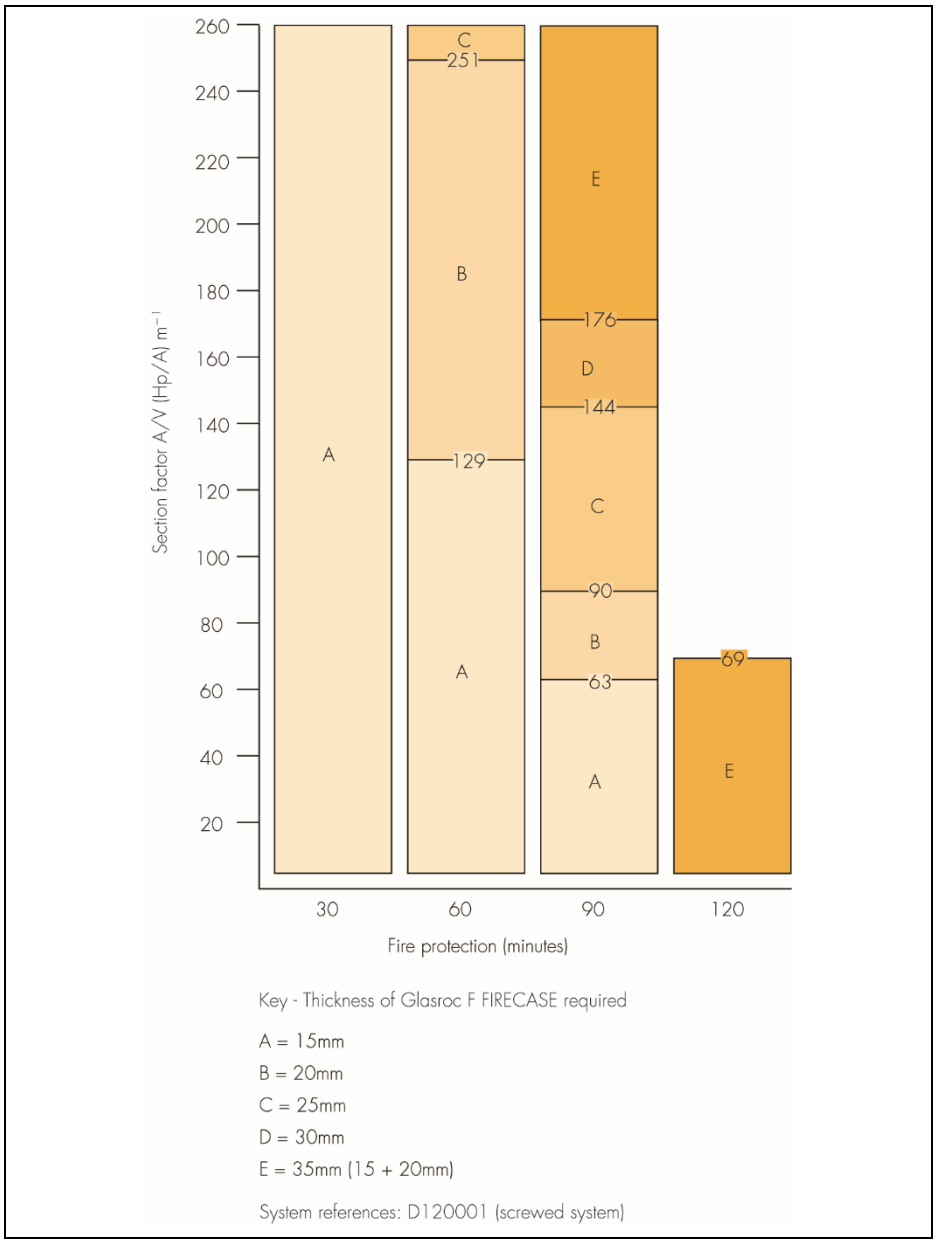


Figure 4 Cladding selection chart for three-sided beam protection at 550°C



6.5 The classifications are only valid for:

- I- and H-shaped sections
- a maximum fire duration of 120 minutes
- a maximum section factor A/V (Hp/A) of 335 m^{-1}
- a maximum section depth of 600 mm
- board thicknesses of 15 to 35 mm (35 mm thickness is fixed in two layers, ie 15 + 20 mm).

7 Strength

The product has satisfactory resistance to impact and loads associated with use.

8 Maintenance

The product is not subject to any routine maintenance; however, any damaged boards must be replaced.

9 Durability



Under normal service conditions and provided the product is used in accordance with this Certificate and the Certificate holder's instructions, it will have a service life equal to that of the building in which it is installed.

10 Reuse and recyclability

Glass-reinforced gypsum products can be recycled under the British Gypsum Plasterboard Recycling Scheme.

Installation

11 General

11.1 The product must be installed strictly in accordance with the Certificate holder's instructions and this Certificate.

11.2 Where wall linings or partitions are to abut the product, suitable provision for fixings should be made.

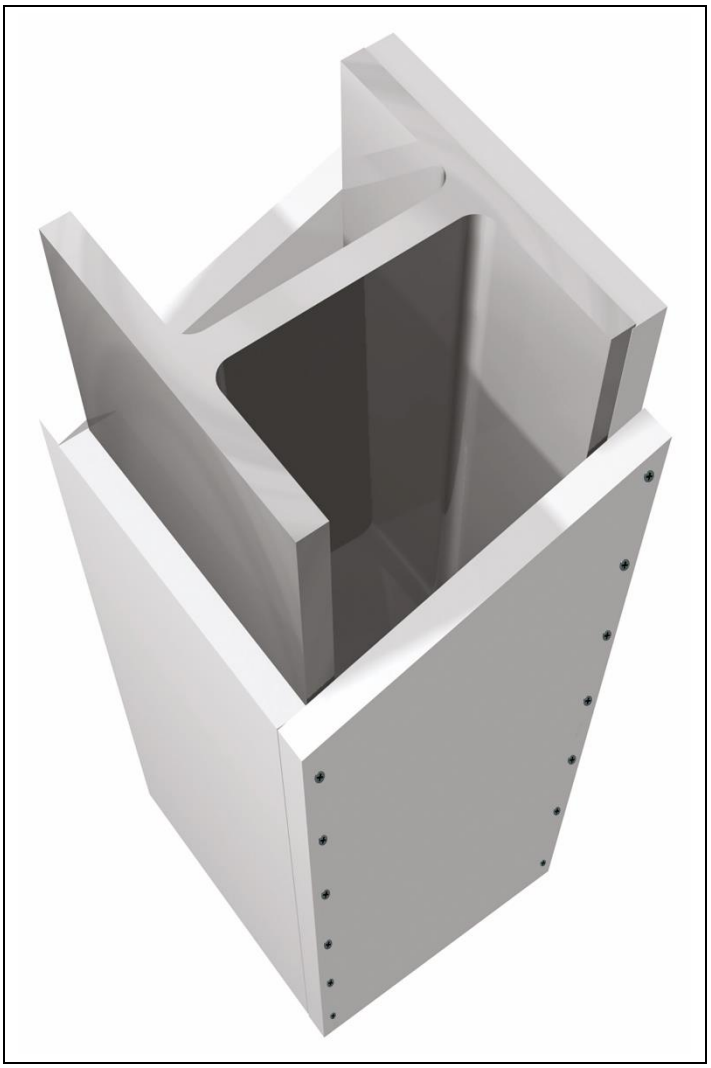
12 Procedure

Four-sided protection to steel columns (see Figure 5)

12.1 For single-layer lining, cladding begins at the base of the column. A half-length board is cut to the width of the section, and two full-length boards are cut to the depth of the section plus twice the thickness of the board. The boards are fixed around the column, and abutting boards are screw-fixed at 150 mm centres. Another half-length board is cut to the width of the column and fixed to the opposite flange, and two full-length boards are cut to the width of the section and fixed. Cladding continues in this way, progressing up the column with full-length boards, and the installation is completed using cut boards.

12.2 Where a double-layer lining is to be used, the first layer is fixed as a single-layer lining and the second layer applied over, staggering the joints by a minimum of 300 mm.

Figure 5 Example of a four-sided column protection



Three-sided protection to steel beams — incorporating steel angles (see Figures 6 and 7)

12.3 Two fascia boards are cut to the depth of the fascia plus the thickness of the soffit board, and fixed to the steel angles at 150 mm centres. A half-length soffit board is fixed between the two fascia boards. Boards are joined by fixing to 60 mm wide backing strips cut from Glasroc F FireCase , which are fixed to ensure a half-lap on each fascia board. Cladding continues in this manner with full-length boards, and the installation is completed using cut boards.

12.4 When lining with a double layer, the first layer is fixed as for a single layer with the exception of the backing strips, which are not required. The second layer is fixed to the first, with the joints staggered by a minimum of 300 mm.

12.5 For a single-layer lining, continuous lengths of Gypframe FEA 1 steel angle are fixed to both sides of the upper flange of the beam by shot firing at 600 mm centres. The down stand of the steel angle should be in line with the toe of the top flange of the beam.

Figure 6 Example of a three-sided beam protection incorporating steel angles

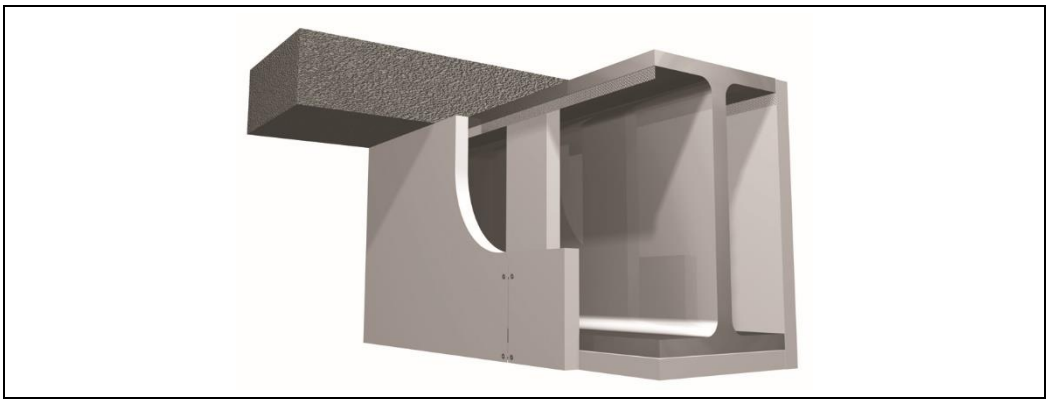
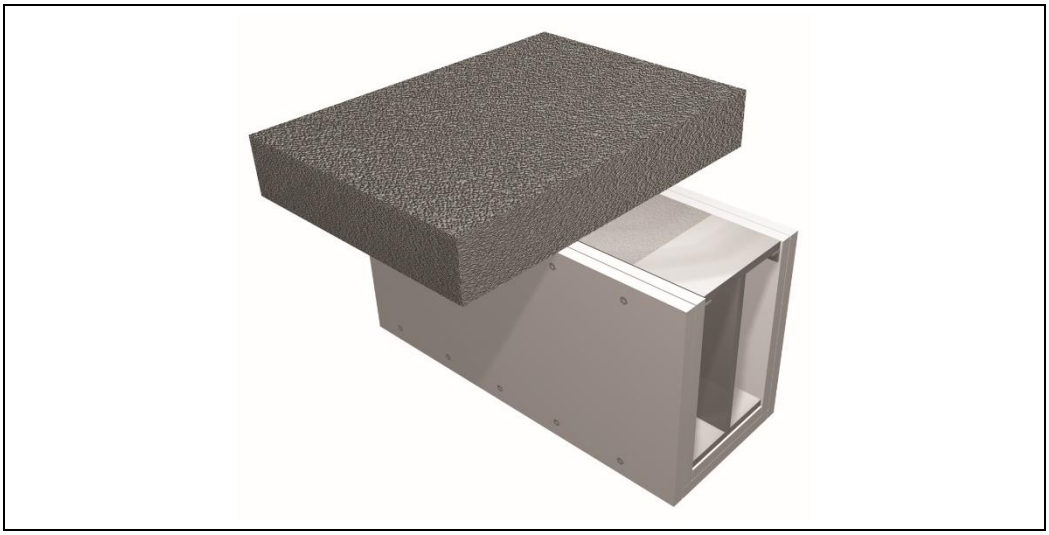


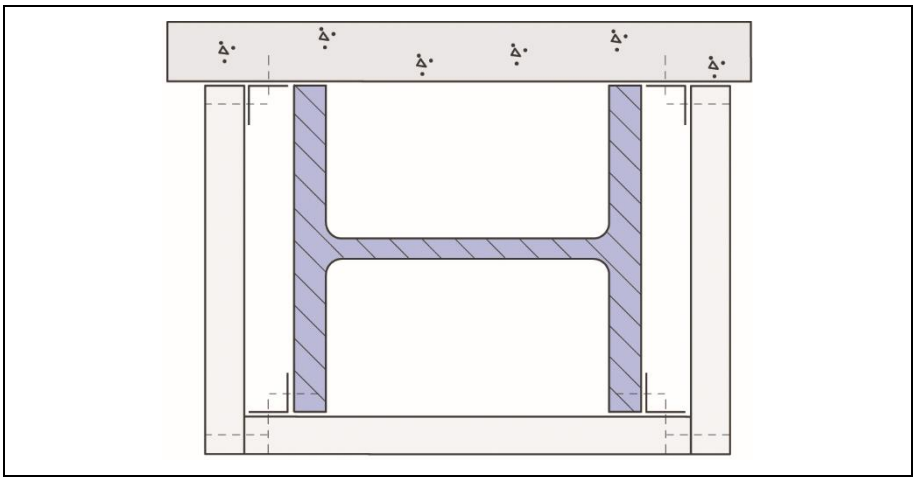
Figure 7 Example of a double-layer three-sided beam protection incorporating steel angles



Three-sided protection to steel columns — incorporating steel angles (see Figure 8)

12.6 The procedure for encasing columns is the same as for beams (see sections 12.3, 12.4 and 12.5), except that backing strips are not required. Where the flanges of the column are at right-angles to the wall, additional steel angles are required.

Figure 8 Example of a three-sided column protection incorporating steel angles



Technical Investigations

13 Tests

Tests were carried out and the results assessed to determine:

- dimensional accuracy
- effect of humidity
- flexural strength
- impact resistance
- water absorption.

14 Investigations

14.1 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.

14.2 Data in relation to fire performance were assessed.

14.3 Visits to sites in progress were conducted to determine the practicability and methods of installation.

14.4 A survey of users was conducted to establish performance in use.

Bibliography

BS EN 13381-4 : 2013 *Test methods for determining the contribution to the fire resistance of structural members — Applied passive protection products to steel members*

BS EN 13501-1 : 2007 + A1 : 2009 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*

BS EN 15283-1 : 2008 + A1 : 2009 *Gypsum boards with fibrous reinforcement — Definitions, requirements and test methods — Gypsum boards with mat reinforcement*

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

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

Conditions of Certificate

Conditions

1. This Certificate:

- relates only to the product 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.

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.

3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product 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.

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

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

6. Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product 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.

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