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Agrément Certificate
16/5378
Product Sheet 2 Issue 2

SIGA AIR AND WEATHERTIGHTNESS PRODUCTS

SIGA-FENTRIM 330 GREY

This Agrément Certificate Product Sheet[1] relates to SIGA-Fentrim 330 Grey, for use as an airtight sealing tape for floor to deep window/façade element junctions in the building structure above ground level.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review

KEY FACTORS ASSESSED

Section 1. Mechanical resistance and stability
Section 2. Safety in case of fire
Section 3. Hygiene, health and the environment
Section 4. Safety and accessibility in use
Section 5. Protection against noise
Section 6. Energy economy and heat retention
Section 7. Sustainable use of natural resources
Section 8. Durability

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 Second issue: 6 October 2023
Certificate amended on 12 October 2023 to update Table 4
Originally Certificated on 11 March 2019

Hardy Giesler
Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.
The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).
Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.
The Certificate should be read in full as it may be misleading to read clauses in isolation.
Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

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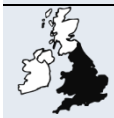
SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that SIGA-Fentrim 330 Grey, 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 Building Regulations 2010 (England and Wales) (as amended)

Requirement:	**B4(1)**	**External fire spread**
Comment:		The product is restricted by this Requirement in some cases. See section 2 of this Certificate.
Requirement:	**C2(c)**	**Resistance to moisture**
Comment:		The product will contribute to satisfying this Requirement. See section 3 of this Certificate.
Requirement:	**L1(a)(i)**	**Conservation of fuel and power**
Comment:		The product can contribute to minimising heat loss. See section 6 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	**25B**	**Nearly zero-energy requirement for new buildings**
Regulation:	**26**	**CO_2 emission rates for new buildings**
Regulation:	**26A**	**Fabric energy efficiency rates (applicable to England only)**
Regulation:	**26A**	**Primary energy rates for new buildings (applicable to Wales only)**
Regulation:	**26B**	**Fabric performance values for new dwellings (applicable to Wales only)**
Regulation:	**26C**	**Target primary energy rates for new buildings (applicable to England only)**
Regulation:	**26C**	**Minimum energy efficiency rating (applicable to Wales only)**
Comment:		The product can contribute to satisfying these Regulations. See section 6 of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)**	**Fitness and durability of materials and workmanship**
Comment:		The product can contribute to satisfying the requirements of this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	**9**	**Building standards – construction**
Standard:	2.6	Spread to neighbouring buildings
Comment:		The product is restricted under clause 2.6.5[(1)(2)] and 2.6.6[(1)(2)] of this Standard. See section 2 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.15.1[(1)(2)] and 3.15.5[(1)(2)]. See section 3 of this Certificate.
Standard:	6.1(b)(c)(d)	Energy demand and carbon dioxide emissions
Standard:	6.2	Building insulation envelope
Comment:		The product can contribute to minimising heat loss with reference to clauses 6.1.1[(1)], 6.1.2[(2)], 6.2.4[(1)] and 6.2.5[(2)] of these Standards. See section 6 of this Certificate.

Standard:	7.1(a)(b)	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. In addition, the product can contribute to a construction meeting a higher level of sustainability as defined in this Standard, with reference to clauses 7.1.4[(1)], 7.1.6[(1)(2)], 7.1.7[(1)], 7.1.9[(2)] and 7.1.10[(2)]. See section 6 of this Certificate.
Regulation:	**12**	**Building standards – 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(1)(a)(i)**	**Fitness of materials and workmanship**
Comment:	**(iii)(b)(i)(ii)**	The product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	**29**	**Condensation**
Comment:		The product can contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation:	**36(a)**	**External fire spread**
Comment:		The product is restricted by this Regulation in some cases. See section 2 of this Certificate.
Regulation:	**39(a)(i)**	**Conservation measures**
Regulation:	**40(2)**	**Target carbon dioxide emission rate**
Regulation:	**43(1)(2)**	**Renovation of thermal elements**
Regulation:	**43B**	**Nearly zero-energy requirements for new buildings**
Comment:		The product can contribute to minimising heat loss. See section 6 of this Certificate.

Additional Information

NHBC Standards 2023

In the opinion of the BBA, SIGA-Fentrim 330 Grey, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapters 6.7 *Doors, windows, and glazing*, 6.9 *Curtain walling and cladding* and 6.10 *Light steel frame walls and floors.*

Fulfilment of Requirements

The BBA has judged SIGA-Fentrim 330 Grey to be satisfactory for use as described in this Certificate. The product has been assessed as an airtight sealing tape for floor to deep window/façade element junctions in the building structure.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the product under assessment. SIGA-Fentrim 330 Grey is a self-adhesive tape consisting of polyolefin film which is fleece coated on one side with an adhesive, backed with a slit release film.

The product dimensions are given in Table 1.

Table 1 Dimensions of SIGA-Fentrim 330 Grey

Characteristic (unit)	Value
Length (m)	25
Width (mm)	150, 200, 300 or 400
Thickness (mm)	1

Ancillary Items

The Certificate holder recommends the following ancillary item for use with the product, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- Dockskin 200 — a polyurethane primer.

Applications

The product is intended for use an airtight tape for sealing between floor and window junctions in the building on the following substrates:

- PVC-U and other hard plastics
- wood
- aluminium and other metal
- concrete
- masonry
- cement particle boards.

Product assessment – key factors

The product was assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Not applicable.

2 Safety in case of fire

Data were assessed for the following characteristic.

2.1 Reaction to fire

2.1.1 SIGA-Fentrim 330 Grey can achieve a reaction to fire classification of Class E[(1)] in accordance with DIN EN 13501-1 : 2010.

(1) Reaction to fire test and classification reports 18-001385-PR01 and 18-001385-PR01 respectively, conducted by ift Rosenheim GmbH. Reports are available from the Certificate holder on request.

2.1.2 On the basis of data assessed, the product will be restricted in use under the documents supporting the national Building Regulations in some cases.

2.1.3 In England, the product, when used in a width of greater than 250 mm, is restricted and should not be used on buildings with a storey at least 18 m above ground level and which contain: one or more dwellings, an institution, a room for residential purposes, student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools, hotels, hostels and boarding houses.

2.1.4 In Wales and Northern Ireland, the product, when used in a width of greater than 250 mm, is restricted and should not be used on buildings with a storey at least 18 m above ground level and which 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 and additionally in Northern Ireland, nursing homes and places of lawful detention.

2.1.5 In Scotland, the product must not be used on buildings 1 m or less from a relevant boundary or on domestic high-rise buildings.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

3.1.1 Results of weathertightness tests are given in Table 2.

Table 2 Results of weathertightness tests

Product assessed	Assessment method	Requirement	Result
Representative related product	Watertightness at 600 Pa water pressure based on DIN EN 1027 : 2000	No leakage	Pass
	Shear bond strength to EN 12311-1 : 1999 (to PVC-U)	Satisfactory bond	Pass
	Shear bond strength to EN 12311-1 : 1999 (to terracotta brick)	Satisfactory bond	Pass
	Shear bond strength to EN 12311-1 : 1999 (to plaster)	Satisfactory bond	Pass

3.1.2 Based on data assessed, the product will resist the passage of water, wind-driven rain and dust into the interior of a building.

3.1.3 The product will satisfy the Class 9A requirements of BS EN 12208 : 2000.

3.2 Resistance to mechanical damage.

3.2.1 Results of resistance to mechanical damage tests are given in Table 3.

Table 3 Results of resistance to mechanical damage tests

Product assessed	Assessment method	Requirement	Result
Relative representative product	Tensile strength to EN 12311-1 : 1999		
	Machine direction:	Value achieved	220 N·(50 mm)$^{-1}$
	Cross direction:		164 N·(50 mm)$^{-1}$
	Elongation to EN 12311-1 : 1999		
	Machine direction:	Value achieved	188 %
	Cross direction:		231 %

3.2.2 On the basis of the data assessed, the product is suitably robust and should not be damaged during installation if reasonable care is taken.

3.3 Water vapour permeability

3.3.1 The water vapour permeability of the product was assessed to determine the equivalent air layer thickness (s_d) of the product. The results are given in Table 4.

Table 4 Equivalent air layer thickness (m)

Product assessed	Assessment method	Requirement	Result
Fentrim 330	Resistance to water vapour diffusion to DIN EN ISO 12572 : 2001	Declared value s_d = 35 m	Pass

3.3.2 Based on data assessed, the product will not adversely affect the risk of interstitial condensation, provided it is used in conjunction with a suitable vapour control layer.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Data were assessed for the following characteristic.

6.1 Airtightness

6.1.1 Results airtightness tests are given in Table 5.

Table 5 Results of airtightness tests

Product assessed	Assessment method	Requirement	Result
Representative related product	Air permeability to DIN EN 12114 : 2000	Value achieved	< 0.1 $m^3 \cdot (m \cdot h \cdot daPa^{2/3})^{-1}$

6.1.2 The product is an air barrier and, when installed correctly, can contribute to junctions minimising heat loss by unplanned air infiltration. The air infiltration classification according to BS EN 12207 : 2016 for suitable windows used in combination with the product will be Class 4. Guidance documents in this respect can be found in the documents supporting the national Building Regulations.

6.1.3 When used and installed in accordance with this Certificate and the Certificate holder's instructions, the product can contribute towards an exterior building envelope meeting a minimum air leakage of less than 1 $m^3 \cdot hr^{-1} \cdot m^{-2}$ at 50 Pa and also less than 0.6 air change per hour at 50 Pa for passive houses.

7 Sustainable use of natural resources

Not applicable.

8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the product were assessed.

8.2 Specific test data were assessed as given in Table 6.

Table 6 Results of durability tests

Product assessed	Assessment method	Requirement	Result
Representative related product	Shear bond strength to EN 12311-1 : 1999 (to PVC-U)	No significant deterioration After thermal shock: After light and moisture exposure:	 Pass Pass
	Shear bond strength to EN 12311-1 : 1999 (to terracotta brick)	No significant deterioration After thermal shock: After light and moisture exposure:	 Pass Pass
	Shear bond strength to EN 12311-1 : 1999 (to plaster)	No significant deterioration After thermal shock: After light and moisture exposure:	 Pass Pass

8.3 Service life

Under normal service conditions, the product will have a life comparable with that of the installed window, provided they are designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

PROCESS ASSESSMENT

Information provided by the Certificate holder was assessed for the following factors:

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.1 The design process was assessed by the BBA, and the following requirements apply in order to satisfy the performance assessed in this Certificate.

9.1.2 External door thresholds must be designed in line with the requirements of the national Building Regulations.

9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation must be carried out in accordance with this Certificate and the Certificate holder's instructions. A summary of instructions and guidance are provided in Annex A of this Certificate.

9.2.3 All substrates must be dry, uninterrupted, even and clean (for example, dust and loose material removed by brushing) prior to installation of the product to ensure an effective adhesive bond.

9.2.4 In cases of doubt on the suitability of the substrate the advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.

9.2.5 The product is rolled out to the required length, extending between 150 to 200 mm either side of the window/façade to be sealed to allow formation of sides of trough, and cut accordingly (see Figures 1 and 2).

Figure 1 Laying out tape

Figure 2 Cutting tape to length

9.2.6 Approximately 100 mm of the release film strip is removed from the product area to be bonded to the window frame (see Figure 3), extending the area by 150 to 200 mm either side of the bonded area.

Figure 3 Starting removal of release film

9.2.7 The film is removed slowly, ensuring the product is correctly aligned and tension free. The product is pressed firmly to the substrate by hand or roller (see Figure 4).

Figure 4 Removal of release film

9.2.8 The remaining backing strips are removed one by one, ensuring the product is tension free and pressed firmly against the substrate (see Figure 5).

Figure 5 Removal of remaining release films, applied tension free

9.2.9 Where necessary, detailing of the product must follow the advice of the Certificate holder, but such advice is outside the scope of this Certificate.

9.2.10 A typical finished installation is shown in Figure 6.

Figure 6 Typical installation

9.3 Workmanship

Practicability of installation was assessed by the BBA and on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, installation of the product must be carried out by a trained competent general builder experienced with this type of product.

9.4 Maintenance and repair

9.4.1 As the product is confined within the final construction and have suitable durability, maintenance is not required.

9.4.2 Any damage to the product must be repaired as soon as possible, and before the application of the finishing layer(s) of the construction detail. The product may be repaired by applying a patch of the product over the damaged area.

9.4.3 In case of doubt, advice on a suitable repair method must be sought from the Certificate holder, but such advice is outside the scope of the Certificate.

10 Manufacture

10.1 The production processes for the product have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

† 10.2 The BBA has undertaken to review 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.

11 Delivery and site handling

11.1 The Certificate holder states that the product is packaged in cartons, containing four rolls for the 150 mm wide product and two rolls for other widths, bearing the Certificate holder's name, product name and width of product. Each roll of product bears a label with the product name, the article number, the QR Code that links to the product webpage and batch number. The roll release liner bears the Certificate holder's name and website address.

11.2 Delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.2.1 The product must be stored in its original containers in a cool, dry place.

11.2.2 The product must not be exposed to sources of heat or high temperatures.

ANNEX A – SUPPLEMENTARY INFORMATION †

Supporting information in this Annex is relevant to the product but has not formed part of the material assessed for the 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.

CLP Regulations

The Certificate holder has taken the responsibility of classifying and labelling the product under the *GB CLP Regulation* and *CLP Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

Additional Guidance

The product is marketed in the United Kingdom by SIGA 1966 UK Ltd, 16 Great Queen Street, Covent Garden, London WC2B 5AH, Tel: 00 41 41 499 69 69.

Bibliography

BS EN 12207 : 2016 *Windows and doors — Air permeability — Classification*

BS EN 12208 : 2000 *Windows and doors — Watertightness — Classification*

DIN EN 1027 : 2000 *Windows and doors — Watertightness — Test method*

DIN EN 12114 : 2000 *Thermal performance of buildings – Air permeability of building elements – Laboratory test method*

DIN EN 13501-1 : 2010-01 *Fire classification of construction products and building elements — Classification using data from reaction to fire tests*

DIN EN ISO 12572 : 2001 *Hygrothermal performance of building materials and products — Determination of water vapour transmission properties*

EN 12311-1 : 1999 *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of tensile properties*

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 marking and 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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