

S4 Mounting Systems

55 Avenue Marceau
Paris, France
75008

Tel: +33 9 55 17 82 59

e-mail: contact@s4mountingsystem.com

website: www.s4mountingsystem.com



Agrément Certificate

25/7499

Product Sheet 1 Issue 1

S4 MOUNTING SYSTEMS

S4 ROOFIT UNIVERSAL MOUNTING SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the S4 ROOFIT UNIVERSAL Mounting System, a polymer mounting plate and extensions with waterproofing strip and reinforcing clamps, for use as an in-line roof mounting system for solar PV modules⁽²⁾ in new and existing domestic and non-domestic buildings with tiled or slated pitched roofs between 12 and 70° in pitch.

(1) Hereinafter referred to as 'Certificate'.

(2) Outside the scope of this 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

The BBA has awarded this Certificate to the company named above for the system described herein. This system 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 issue: 4 December 2025



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

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.

British Board of Agrément

1st Floor, Building 3, Hatters Lane
Croxley Park, Watford
Herts WD18 8YG

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tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk

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 the S4 ROOFIT UNIVERSAL Mounting System, 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:	A1(1)(b)	Loading
Comment:		The system can contribute to satisfying this Requirement. See section 1 of this Certificate.
Requirement:	B4(2)	External fire spread
Comment:		The system is unrestricted by this Requirement. See section 2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The system can contribute to satisfying this Requirement. See section 3 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards – construction
Standard:	1.1b	Structure
Comment:		The system can contribute to satisfying this Standard, with reference to clauses 1.1.0 ⁽¹⁾⁽²⁾ and 1.1.1 ⁽¹⁾⁽²⁾ . See section 1 of this Certificate.
Standard:	2.8	Spread from neighbouring buildings
Comment:		The system is unrestricted by this Standard, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The system can contribute to satisfying this Standard, with reference to clause 3.10.7 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The system 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 – conversion
Comment:		All comments given for the system 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)	The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The system can contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation:	30(a)(b)	Stability
Comment:		The system can contribute to satisfying this Regulation. See section 1 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		The system is unrestricted by this Regulation. See section 2 of this Certificate.

Additional Information

NHBC Standards 2025

In the opinion of the BBA, the S4 ROOFIT UNIVERSAL Mounting System, 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 7.2 *Pitched Roofs* and 8.2 *Low or zero carbon technologies*.

The opinion of the BBA does not amount to any endorsement or approval by NHBC and does not in any way guarantee that NHBC will approve such product / system as compliant with the NHBC Technical Requirements and Standards.

Fulfilment of Requirements

The BBA has judged the S4 ROOFIT UNIVERSAL Mounting System to be satisfactory for use as described in this Certificate. The system has been assessed as an in-line roof mounting system for solar PV modules⁽¹⁾ in new and existing domestic and non-domestic buildings with tiled or slated pitched roofs between 12 and 70° in pitch.

(1) Outside the scope of this Certificate.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the system under assessment. The S4 ROOFIT UNIVERSAL Mounting System consists of:

- Solar Plates — rigid polymer plates that form the mounting point between rafters and solar panels (refer to Table 1 and Figure 1)
- S4 Lateral Flashing — an Alu 3005 H42 epoxy coated aluminium flashing to bridge the transition between tiles and the S4 ROOFIT UNIVERSAL Mounting System
- Adjustable Single Clamp 6005-TS and Adjustable Double Clamp 6005-TS — stainless steel grade 1.4301 2H +C1000 clamps for the mounting of the solar panel
- TP 300 Joint Backer Plus — expanding foam tape to form a waterproof edging
- stainless steel screws — measuring 6.5 × 60 mm, with an ethylene propylene diene monomer (EPDM) washer.

Table 1 Nominal characteristics — Solar Plates

Characteristic (unit)	Solar Plate elements				
	Universal Plate	Vertical Extension	Horizontal Extension (small)	Horizontal Extension (large)	End of Array
Length (mm)	1150	500	1150	1150	1150
Width (mm)	500.5	500.5	58	145	115
Weight (kg)	2.34	9.3	0.38	0.83	0.40
Colour	Black	Black	Black	Black	Black

Figure 1 Solar Plates



The system has been assessed by the BBA as meeting the requirements of the Microgeneration Certification Scheme, MCS 012 *Product Certification Scheme Requirements: Pitched Roof Installation Kits* (Certificate MCS BBA 0145).

Ancillary Items

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

- solar panels
- DC to AC power inverter
- consumer unit
- generation meter
- connecting cables.

Product assessment – key factors

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

1 Mechanical resistance and stability

Data were assessed for the following characteristics.

1.1 Properties in relation to loading

Results of load resistance tests are given in Table 2.

Table 2 Wind Uplift Resistance

Product assessed	Assessment method	Requirement	Result
Complete test installation (slates and tiles)	MCS 012, Issue 2.4	Value achieved	Design imposed load 2.18 kN·m ⁻²
Complete test installation (sarking boards)	MCS 012, Issue 2.4	Value achieved	Design imposed load 2.18 kN·m ⁻²

2 Safety in case of fire

Data were assessed for the following characteristics.

2.1 Reaction to Fire

2.1.1 The result of reaction to fire tests are given in Table 3.

Table 3 Reaction to Fire

Product assessed	Assessment method	Requirement	Result ⁽¹⁾
S4 ROOFIT UNIVERSAL Mounting System with PV Module Deep Blue 3.0 Pro JAM 54S31-410/GR	CEN/TS 1187 : 2012 Classified to BS EN 13501-5 : 2016	Classification achieved	B _{Roof} (t4)

(1) Classification Report EUI-24-000086B, issued by Effectis UK/Ireland; copies available from the Certificate holder on request.

2.1.2 On the basis of data assessed, the system defined in Table 3 is unrestricted by the documents supporting the national Building Regulations with respect to proximity to a relevant boundary.

2.1.3 This performance may not be achieved when the system is used in conjunction with other PV modules. The classification and permissible areas of use of such material combinations must be established in accordance with the requirements of the documents supporting the national Building Regulations.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

3.1.1 The results of weathertightness tests are given in Table 4.

Table 4 Weathertightness

Product assessed	Assessment method	Requirement	Result
S4 ROOFIT UNIVERSAL Mounting System	MCS 012 Appendix A.3	No leaks	Pass
Trina Solar VertexS TSM-DE09.08 Monocrystalline backsheet 410W solar panels and Redland Regent concrete rooftile	MCS 012, Appendix A.3	No water penetration	Pass

3.1.2 On the basis of data assessed, completed roofs will provide adequate resistance to weather ingress.

3.1.3 Particular attention must be paid to the correct fitting of all components and to the detailing and positioning of gaskets and areas where cables enter the building.

3.2 Resistance to wind uplift

3.2.1 The result of a resistance to wind uplift test is given in Table 5.

Table 5 Resistance to wind uplift

Product assessed	Assessment method	Requirement	Result
S4 ROOFIT UNIVERSAL Mounting System	BS EN 14437 : 2004 Determination of the uplift resistance of installed clay or concrete tiles for roofing – roof system test method	Determine characteristic uplift resistance	Design imposed load 2.18 kN·m ⁻²

3.2.2 On the basis of data assessed, the system can be designed to provide adequate resistance to wind uplift.

3.2.3 It is the responsibility of the designer and installer to ensure the installed system is able to resist the anticipated loads for each project.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

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 system were assessed.

8.2 Service life

Under normal service conditions, the system will have a structural life at least equivalent to the structure in which it is incorporated, provided it is 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 specified in this Certificate.

9.1.2 The condition and structural adequacy of the roof into which the system is to be mounted must be evaluated by a site survey and assessed by a suitably experienced and competent individual. The roof must be sufficiently robust to resist the additional loads resulting from the installation of the modules. The maximum rafter spacing is 600 mm (between centres) and the minimum batten size is 50 x 25 mm.

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 is provided in Annex A of this Certificate.

9.2.3 Installation of the system must not be carried out in very windy or wet conditions.

9.2.4 The system must be protected from damage during installation.

9.3 Workmanship

Practicability of installation was assessed by the BBA, on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, installation of the system must only be installed by a trained and qualified installer, experienced with this type of system.

9.4 Maintenance and repair

9.4.1 Ongoing satisfactory performance of the system in use requires that it is suitably maintained. The guidance provided by the Certificate holder was assessed by the BBA and found to be appropriate and adequate.

9.4.2 The following requirements apply in order to satisfy the performance assessed in this Certificate:

9.4.2.1 Security of mountings, cable connections and components must be checked regularly.

10 **Manufacture**

10.1 The production processes for the system 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 system 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 stated that the system is delivered to site in packaging bearing the product name, the manufacturing order, batch number, quantity of pallets, date of packaging and the pallet number.

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

11.2.1 Pallets must be stored in a dry, level area.

Supporting information in this Annex is relevant to the system 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.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of ISO 9001 : 2015 by AFAQ AFNOR (Certificate No2018/78068.4) and DN EN ISO 9001 : 2015 by TUV Rheinland Cert GmbH (Certificate 01 100 4301).

Additional information on installation

A.1 Installation of roofing underlay must be carried out in accordance with EN 13859-1 : 2014.

A.2 The covering elements (roofing tiles) are removed from the area of installation. This is done by taking out an extra row of tiles from either side, (two rows for slate or flat tiles). An additional row is also taken from the upper edge of the working area, or two rows for slate or flat tiles.

A.3 The spacing between battens depends on the roofing elements (interlocking tiles, flat tiles, slate): 350 to 80 mm.

A.4 The waterproofing strip is unrolled and positioned, ensuring that the lap and positioning are such that it does not trap water.

A.5 A chalk line is marked on the waterproofing strip, parallel to the battens and between 15 and 20 cm below the top edge of the waterproofing strip.

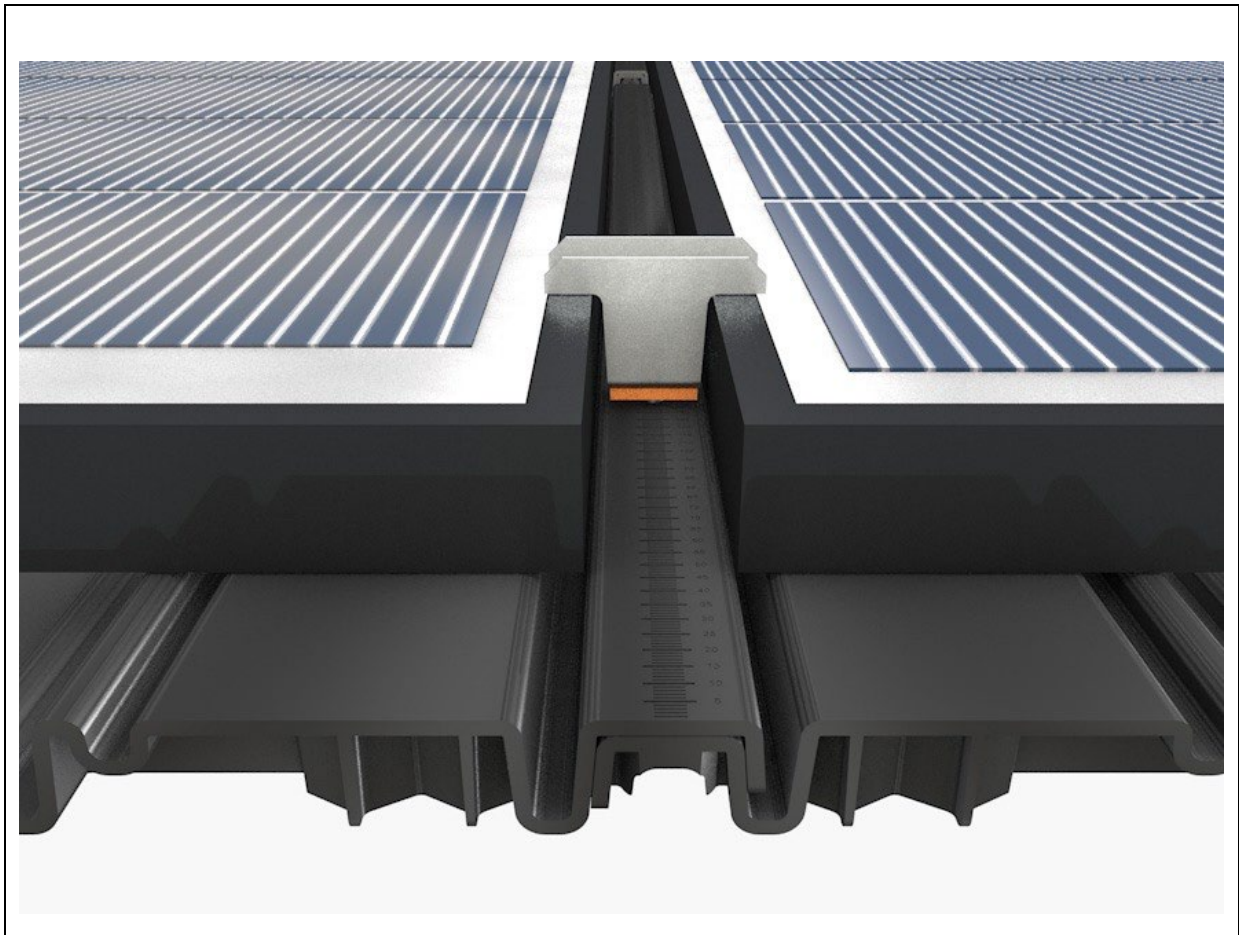
A.6 The mounting plate is positioned in the bottom right-hand corner of the uncovered area, aligned with the chalk liner mark. This is then fixed in place by screwing the mounting plate into position using the 2 central fixing points. The points do not need pre-drilling. The mounting plate will cover 12 to 16 cm

A.7 The second mounting plate is placed and aligned with the first one, ensuring that they interlock.

A.8 This process is repeated for the second row of mounting plates and any additional rows. The mounting plates above must overlap the mounting plates below all the way until in contact with the dedicated stops built into the mounting plate contouring. The overlap will be 12 to 16 cm depending on the module height.

A.9 The clamps are fixed only on the mounting plate edge. The clamps must be attached using the screws, ensuring the washers and expanding foam tape is stuck between the clamp and the mounting plate to ensure waterproofness (see Figure 2).

Figure 2 Fixing system for solar panels



A.10 An End of Array element is placed under the wave shaped cut-out at the edge of the main mounting plate, under where the clamps will be fixed. Note that there are left and right End of Array elements and these are not interchangeable. The left piece has a honeycomb structure on the back where the right does not. The End of Array element will be drilled with the plate and lateral flashing, before fixing the single clamp.

A.11 The lateral flashings must be positioned overlapping the wave shaped cut-out on the right and left edges of the End of Array element. A 4.8 x 25 mm screw is used at the junction of 2 lateral flashings to fix them together.

A.12 The solar panels are installed, ensuring that they align with the clamps (see section A.9). Once aligned, the clamps are tightened to fix in place.

Bibliography

CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*

BS EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests* BS EN 14437 : 2004 *Determination of uplift resistance of installed clay or concrete tiles for roofing — Roof system test method*

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

EN 13859-1 : 2014 *Flexible sheets for waterproofing — Definitions and characteristics of underlays — Underlays for discontinuous roofing*

ISO 9001 : 2015 *Quality management systems — Requirements*

MCS 012 *Product Certification Scheme Requirements : Solar Mounting Kits 3.0*

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
- 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
- and any matter arising out of or in connection with it or its subject matter (including non-contractual disputes or claims) is governed by and construed in accordance with the law of England and Wales.
- the courts of England and Wales shall have exclusive jurisdiction to settle any matter arising out of or in connection with this Certificate or its subject matter (including non-contractual disputes or claims).

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.