Certificate

Certificate No.

R41360-1

Issue date

25/08/2024

Expiration date

26/08/2027

This is to acknowledge that

Marley Ltd

Rainscreen Cladding System

- Marley Weatherboard cladding system

Evaluated and meets the requirements of the certification scheme.

BSFO - Performance of Cladding and Cladding Supports Systems for use in the United Kingdom Systems V2.0

4705

Certificate for the UL Mark – Performance of Cladding and Cladding Supports Systems for use in the United Kingdom

Section 1 – Certificate Details

Customer Name:	Marley Ltd	**Certification Body:**	UL International (UK) Ltd
Customer Address:	Lichfield Road Branston Burton upon Trent DE14 3HD	**Certification Body Address:**	Halesfield 2 Telford Shropshire TF7 4QH
UL Scheme:	BSFO - Performance of Cladding and Cladding Supports Systems for use in the United Kingdom Systems V2.0	**Certificate Number:**	R41360-1
Date of Certification Commencement:	25th September 2024	**Date of Certification Expiry:**	26th September 2027
Certificate Compiled by:	Mark Swanborough Staff Engineer	**Certificate Approved by:**	Michael Wass Business Manager
Signed:		**Signed:**	

Section 2 – Product covered by this Certificate

System Name	System Type
Marley Weatherboard cladding system	Rainscreen Cladding System

This Certification Covers

- A detailed overview of the certified product
- An initial assessment of the certified company's factory production control system.
- A review of the product's documentation to help demonstrate compliance with the applicable requirements of the NHBC standard 2024 chapter 6.9.
- An assessment of the certified product's contribution to any key requirements of the building regulations.
- An overview of the certified company's product installation requirements and procedures.
- An overview of all supporting test documentation used for the product evaluation.
- Ongoing surveillance of the certified company's factory production control system and procedures.
- The conditions under which this product certification is valid.
- The fitting of any windows or doors have not been tested as part of the system performance.

Certificate Assessment Criteria

The certification evaluates the performance of the façade / cladding system using CWCT sequence B – Standard for systemised building envelopes 2005.

- Water penetration (dynamic) – CWCT Section 7
- Wind resistance (serviceability and safety) – CWCT section 11 & 12
- Impact testing (retention of performance & safety to persons) – CWCT TN76

Section 3 – Product Specification and full description of the certified product

The Marley Weatherboard cladding system exterior cladding for use over timber frame, steel frame or masonry walls. The system utilises semi-compressed, fibre-reinforced portland cement planks manufactured to EN 12467:2012.

3.1 The Marley Weatherboard is a fibre cement weatherboard system offering light weight, durable timber effect external cladding for residential and commercial applications.

Marley Weatherboard Product Data

Length	3600mm
Width	200mm
Thickness	8mm
Fire rating	A2-s1, d0
Lap	30-50mm
Coverage	1.63 boards/m2 (30mm lap)
Finish	Woodgrain effect
Weight per board	8.6kg

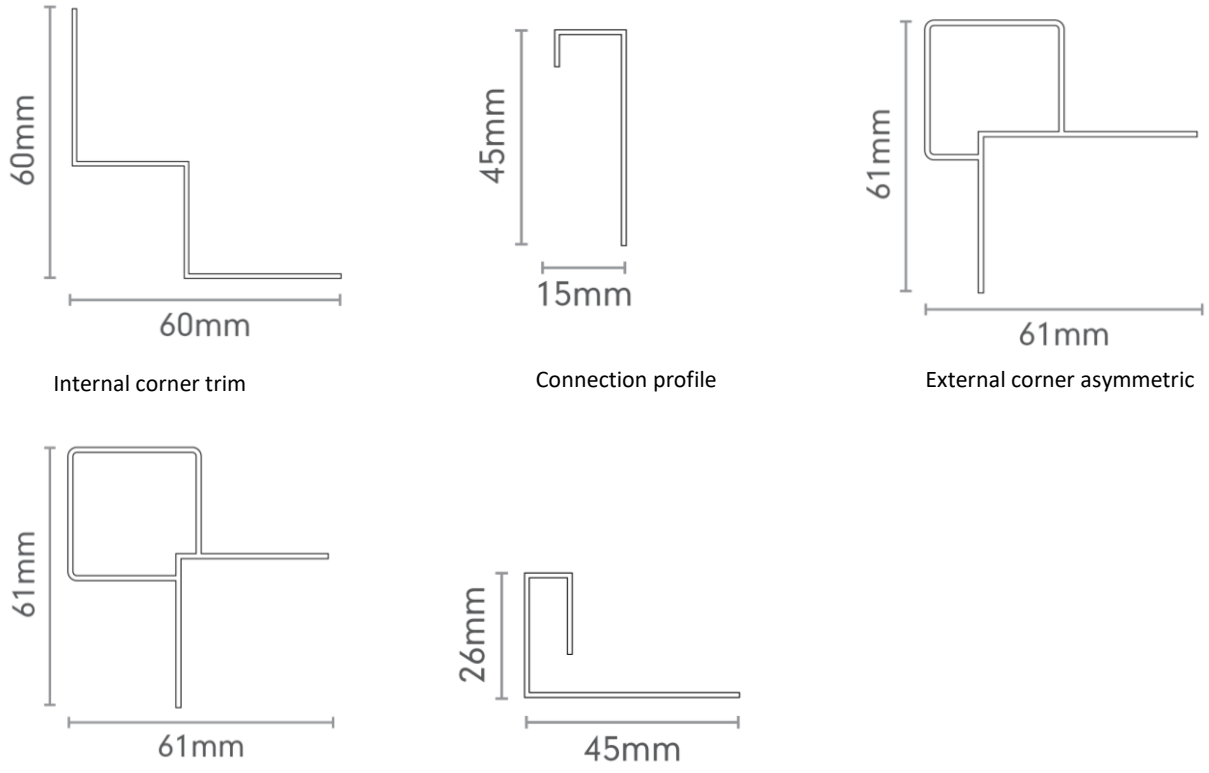
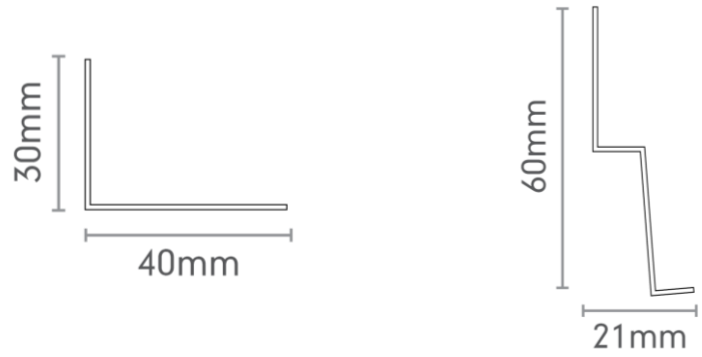


Figure 1. Weatherboard vertical trims



Perforated closure

Starter profile

Figure 2. Weatherboard horizontal trims

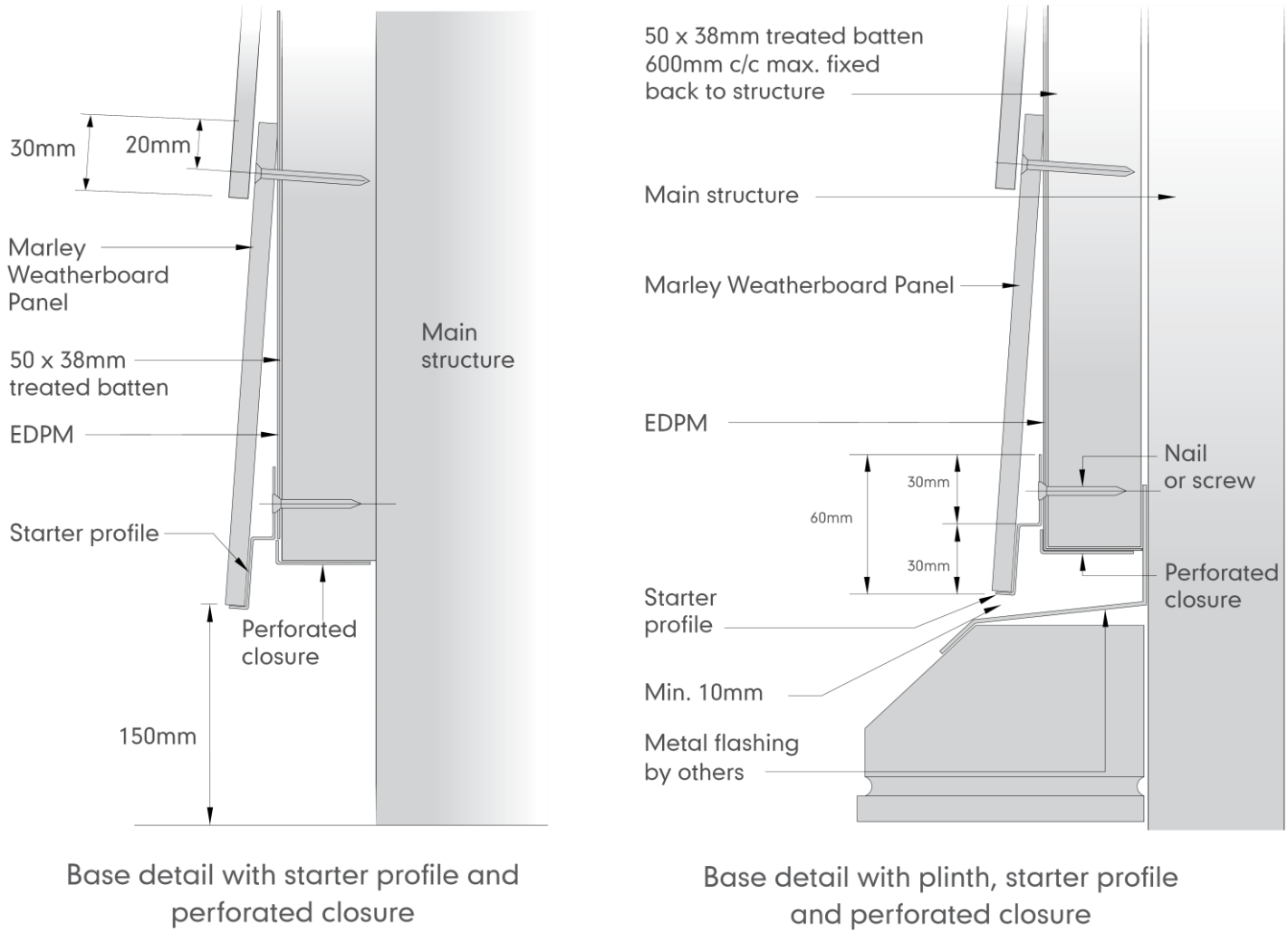


Figure 3. Typical base details

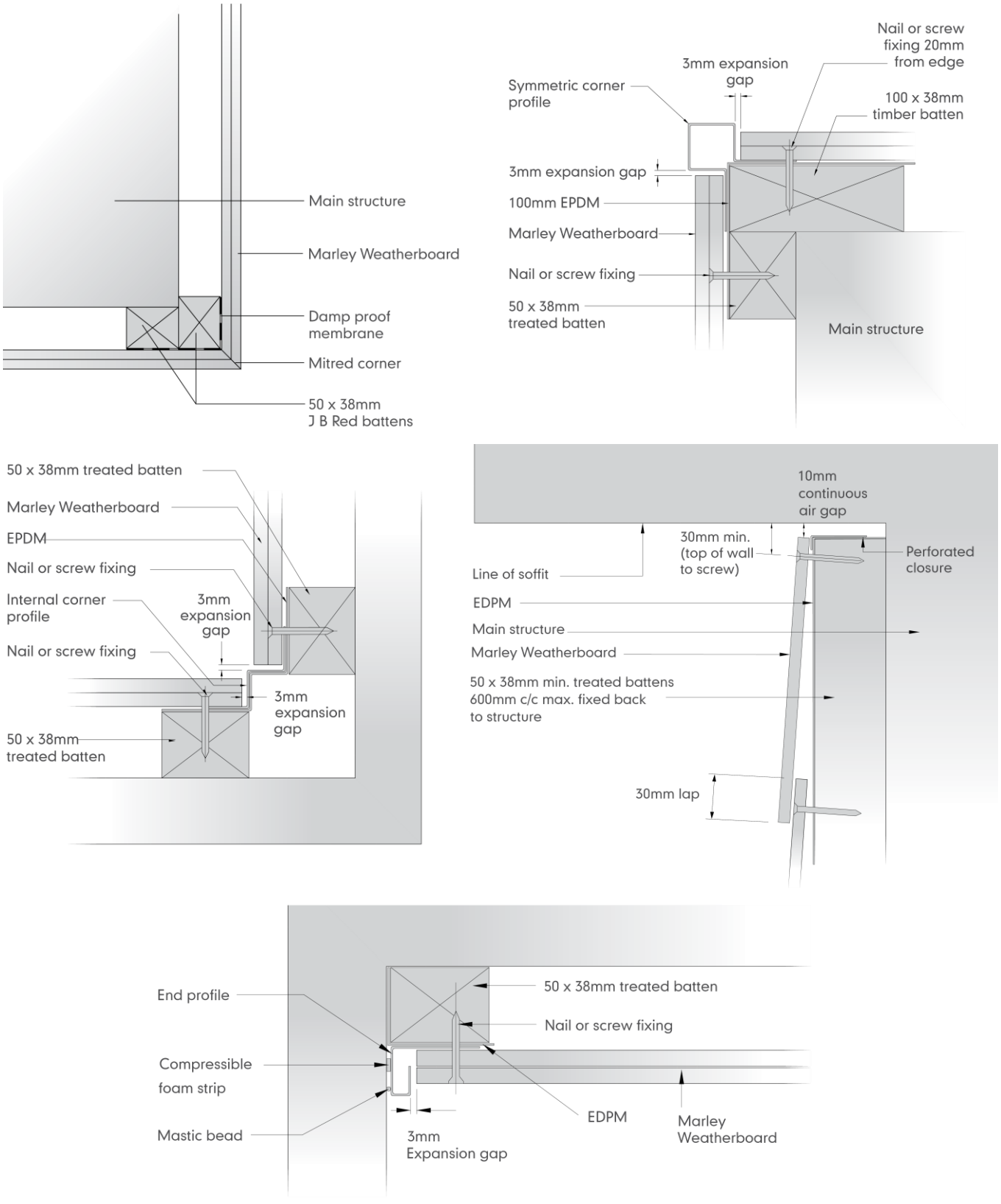


Figure 4. Typical corner and edge details

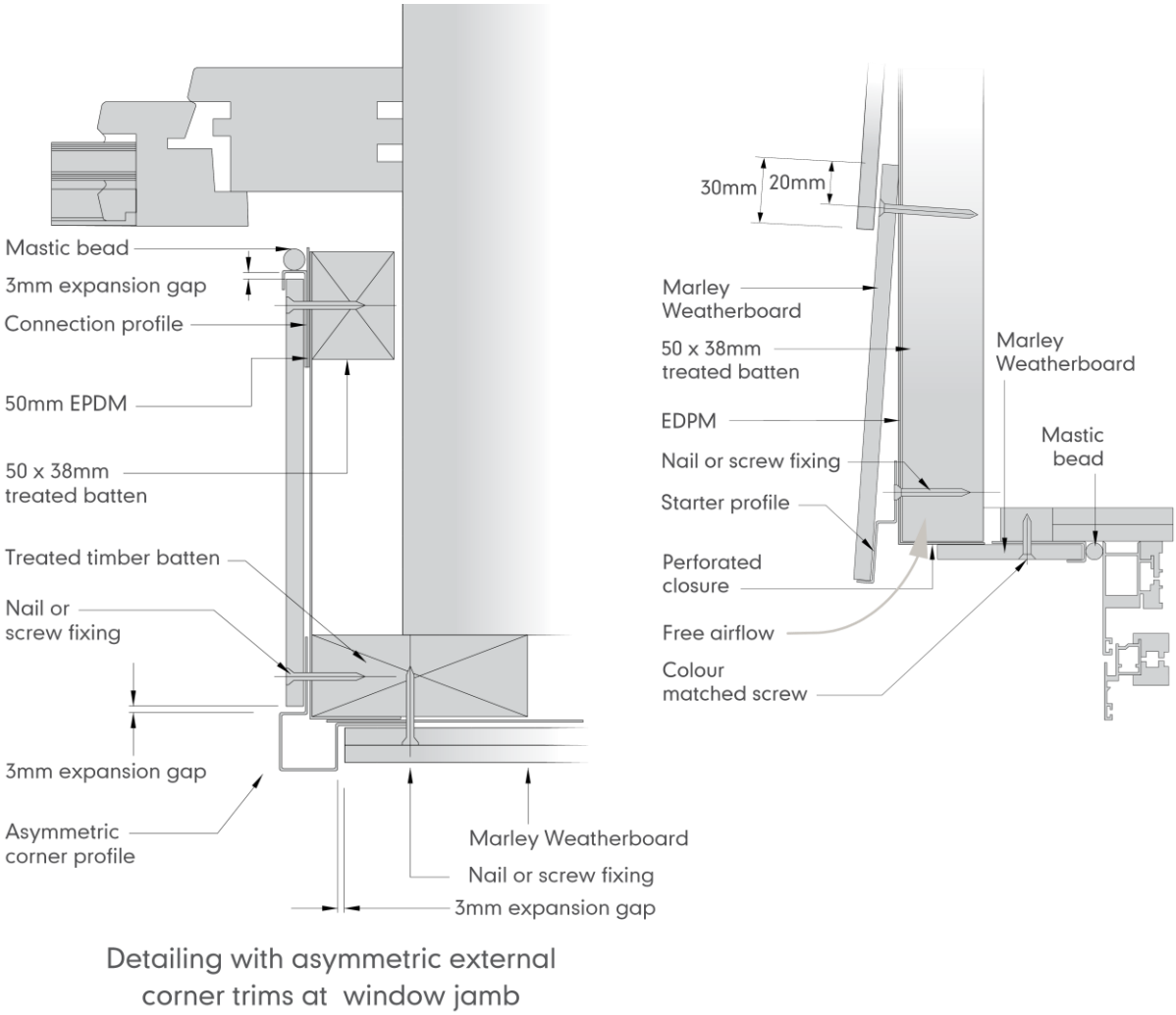


Figure 5. Typical window details

Marley Weatherboard is primarily fastened to 38 x 50mm vertical timber battens, spaced at maximum 600mm centres

The relevant parts of the system can be installed to metal frame supports where required, typically comprising Helping Hand Wall Brackets, Vertical and Horizontal Rail Types & suitable fixings for aluminium component assembly and aluminium supports to building substrates. The use of metal frame systems should meet the requirements of the CWCT Standards and NHBC technical requirements. Example metal frame wall brackets and system profiles as supplied by RJ Facades*.

Wall Brackets
EVT II - Aluminium FPH & SPH, for Concrete and SFS Standard L Brackets
EVT U-Brackets – 3mm Stainless Steel (A2 & A4) FPH & SPH, slots for Concrete and Steel
EVT II Horizontal Adaptor & EVT II - Aluminium 80mm/H L-Bracket

System Profiles
EVT L-Profile - 60 x 40 x 2mm for use with EVT II L Brackets
EVTII T-Rail - 110 x 60 x 2mm for use with EVT II L Brackets
EVT floor span profile for use with EVT II U Brackets
EVT Z-Profile - 45 x 25 x 30 x 2mm where no adjustment required
Structural Tophat for EVT II FPH & SPH L brackets & U-brackets
Structural C-Channel for EVT II FPH & SPH L brackets & U-brackets

*Refer to Certificate Number R40530-1 for full references and technical information

Section 4 - Factory Production Control

Marley Ltd supply cladding systems into the UK market. The company head office is situated in Burton Upon Trent in the UK. For the purpose of this certificate, the EVT aluminium and stainless-steel parts, and fixings were provided by RJ Facades. The Weatherboards are manufactured by Polene Silicon Co Ltd in Thailand. All items are dispatched/transported directly to the end client or to the UK based warehouse/head office prior to distribution to the client. The certificate incorporates the partnership between Marley Ltd and their UL approved supply chain to produce the Marley Weatherboard cladding system.

An initial factory production control audit has been carried out at the certified product's manufacturing sites to assess the effectiveness of the following:

- Contract review – enquiries, quotations and orders
- Production planning and organisation
- Control of purchasing, including supplier approvals
- Control and storage of incoming materials and components
- Control of documentation related to the production, quality control/inspection, packaging and despatch
- Identification and traceability of certified products
- Ongoing production inspection, testing and records thereof
- Maintenance of production equipment
- Training Records of personnel
- Internal audit reports including non-conformances and corrective actions
- Customer complaint and non-conforming products procedures
- Installation guide and processes
- Labelling of products

UL International (UK) Ltd, witnessed the production processes at the locations described above and it can be confirmed that procedures and controls were carried out as specified/documented and were in line with the UL BSFO certification scheme requirements. All of the manufacturing sites will be subjected to annual surveillance audits to ensure ongoing compliance and effectiveness.

Section 5 - Design documentation review of the certified product

A review of the certified product's documentation was conducted in order to help demonstrate compliance with the appropriate sections of the NHBC Standard requirements section 6.9 and the scheme document. At least the following requirements were evaluated in the review and were found to show evidence that complies.

5.1 Loads and movements

Marley Ltd confirm that a suitably qualified engineer or specialist frame designer should calculate the Imposed loads acting on the system according to BS EN 1991-1:2002 and BS EN 1991-1-4:2005+A1. National Annex's should be complied with when present. This system provides adequate provision for movement according to CWCT standard for systemised building envelopes.

5.2 Support and Fixings

The Marley Weatherboard Cladding System has demonstrated that it can be securely fixed with suitably durable fixings to ensure adequate in-service performance. The cladding system can be installed to SFS, steel, masonry and timber substrates. The designer of the backing wall should ensure that it has been designed according to the relevant national standards including National Annex where applicable. The backing structure should be confirmed as suitable of taking the loads imposed by the system. Suitable fixings must be used for each component of the system, supported with a European Technical Assessment where possible. Fixings should be installed by suitably trained personnel as per Marley Ltd installation guidance.

5.3 Durability

The product provides satisfactory durability (subject to routine inspection and maintenance). The system has been designed to avoid the need for disproportionate work when repairing or replacing individual components. Fibre-cement flat sheets conform to BS EN 12467:2012+A2:2018.

5.4 Interfaces

The Marley Weatherboard Cladding System has suitable interfaces and resists the penetration of water and wind and is designed to be weather resistant.

5.5 Insulation

Insulation to be supplied and specified by others. Further guidance should be obtained from the insulation manufacturer.

5.6 Damp proofing and vapour control

The Marley Weatherboard Cladding System, including damp proofing materials and airtight membrane are designed to adequately resist the passage of water into a building and allows water vapour to pass outwards. CWCT Test Report No: R4791006703. Cavity trays should be fitted at the base of the system and above any openings where required.

5.7 Electrical continuity and earth bonding

Marley Ltd specifies that electrical continuity and earth bonding is to be managed by separate contractors onsite during installation. The rainscreen cladding system design should comply with BS 7671 'Requirements for Electrical Installations, formerly IEE Wiring Regulations' and BS 6651 'Code of Practice for Protection of Structures against Lightning'.

5.8 Maintenance and Installation

Suitable installation guidance is supplied by Marley Ltd for the Weatherboard cladding system. The system design allows for appropriate access arrangements for the purposes of cleaning, inspection, maintenance and repair. Should there be a requirement where a Weatherboard or Weatherboards needs to be replaced this may lead to stripping localised sections from the nearest accessible detail or full elevations to replace correctly.

5.9 Ventilation screens

Any ventilation openings are protected from the entry of birds and animals, Marley Ltd have confirmed that a suitable anti-vermin product can be supplied to ensure compliance (gaps/openings over 10mm).

5.10 Handling and storage

An onsite assessment of the manufacturer and supply chain confirmed that materials, products and systems are protected and stored in a satisfactory manner to prevent loss, damage, distortion, uneven weathering and any degradation. The safe handling of and storage of material is detailed further in the product installation guidance.

5.11 Weather resistance

The Marley Weatherboard Cladding System has been designed to resist the passage of water to inside the building. A CWCT Sequence B test has been carried out on this system by a UKAS accredited laboratory – see section 7 tests 5 and 6 for further details.

5.12 Thermal bridging and condensation

The Marley Weatherboard Cladding System and the insulation used has been designed/considered so that thermal bridging is considered and managed. Thermal spacers between supporting walls and structure can be used to aid thermal performance.

5.13 Drainage and ventilation

The cladding system has a rear ventilated cavity and allows drainage. A minimum 38mm gap between the frame and the wall is recommended by Marley Ltd to allow for proper ventilation and structural integrity.

5.14 Opening doors and lights

Openable windows are to be installed so that they fit neatly and have minimal gaps to ensure effective weatherproofing of the system is maintained. Windows and doors remain the responsibility of the building substrate designer and have not been CWCT tested under the scope of this certificate.

5.15 ETAG

The Weatherboard supplier has a DoP stating that no dangerous substances are used in their manufacture or material composition. The fibre-reinforced portland cement boards have been assessed to EN12467:2012. The manufacturer and supplier have confirmed the following performance criteria have been met: Freeze thaw - Pass, Reaction to fire A2-s1,d0, Mechanical Resistance A2, Warm Water Resistance, Heat/ Rain Resistance. Weather impermeability Pass. Please see DoP for more details.

5.16 Behaviour in relation to fire. Note fire approval is outside the scope of this Certificate

5.16.1 Marley Weatherboard is classified A2-s1,d0 in accordance with BS EN 13501-1 and as declared in the manufacturers DoP.

5.16.2 Aluminium/stainless-steel brackets and support structure and stainless steel fixings should be Class A1 'No contribution to fire' provided for in decision 94/611/EC implementing Article 20 of Council Directive 89/106/EEC on construction products

Section 6 - Comments on the certified products contribution to The Building Regulations

A review of the key related requirements from The Building Regulations 2010 (England and Wales) was conducted based on the information declared by Marley Ltd. and the data provided for the documentation review. The following comments have been made on whether the certified product can contribute to the Building Regulations requirements.

The Building Regulations 2010 (England and Wales)

Requirement	Comment/s
A.1 Loading	The calculations, statements and reports provided gives confidence that this regulation is contributed towards by the product certified.
B2(1) Internal fire spread (linings) and B4 (1) External fire spread	The two key components of the cladding system comprise of non-combustible aluminium and a non-flammable/non-combustible cement boards. This gives confidence that this regulation is contributed towards by the product certified.
C2 (B) Resistance to moisture	The Technical Report – R4791006703 CWCT – Standard for systemised building envelopes – 2005 gives confidence that this regulation is contributed towards by the product certified when designed as a fully drained and ventilated cladding system.
7. Materials and workmanship	The evidence of method statements, installation guidance and staff training provided gives confidence that this regulation is contributed towards by the product certified.

The Building (Scotland) Regulations 2004 (as amended)

Requirement	Comment/s
1.1 Structure	The calculations, statements and reports provided gives confidence that this regulation is contributed towards by the product certified.
3.10 Precipitation	The Technical Report – R4791006703 CWCT – Standard for systemised building envelopes – 2005 (details in section 8) gives confidence that this regulation is contributed towards by the product certified when designed as a fully drained and ventilated cladding system.
3.15 Condensation	The drainage and ventilation design of the system gives confidence that this regulation is contributed towards by the product certified.
8(1) Fitness and durability of materials and workmanship	The evidence of method statements, installation guidance and staff training provided gives confidence that this regulation is contributed towards by the product certified.

Section 7 - Product installation

General

This product must be installed in accordance with Marley Ltd. recommendations, installation guidance and the requirements of this certificate. Marley Ltd. have specified that any products should be installed by competent and trained personnel.

Product delivery

The certified product's components are delivered to site in suitable packaging transported by long distance haulage companies. Heavy-duty packaging is used for the products, and this was demonstrated during the onsite visits of the facilities. Each delivery is labelled with details including order number, location, product name, type, size, quantity and weight.

Site survey

Marley Ltd have specified that prior to installation of Marley Weatherboard Cladding System; a pre-installation survey of the property has to be carried out by the installer to determine whether the site is suitable for product installation and if any repairs are required to the building wall.

Section 8 - Supporting CWCT test documentation

General
Air and water testing of the Marley Weatherboard Cladding System was carried out in accordance with the CWCT Standard test sequence B - Test report R4791006703 . The system tested was deemed to cover the typical size and configuration of systems that will be provided by Marley Ltd.

Test sample size and configuration
The product dimensions were in accordance with UL International (UK) Ltd, guidance document WEL 354. The sample was 5.0 m wide by 8.0 m in height, however, the backing wall and a window pod detail was excluded from this test and remains the responsibility of the substrate designer.

Testing carried out
CWCT Test Methods for Building Envelopes – Dec 2005; Sections 7, 11, 12 & CWCT TN 76. The testing was conducted on the 29th January 2024 and completed on the 7th February 2024. Test Report No: R4791006703 issued 14th March 2024.

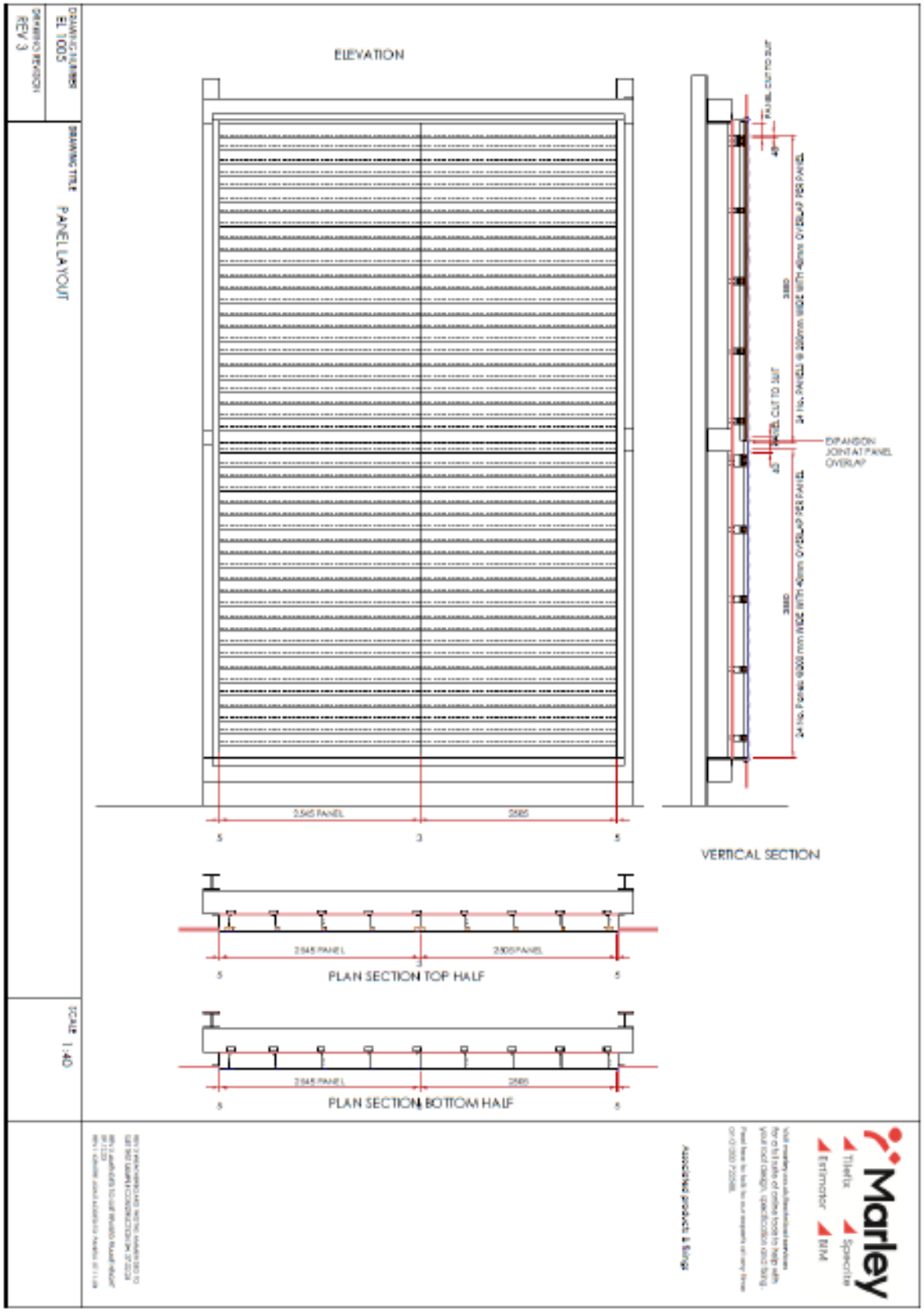
Test laboratory
UL International (UK) Ltd, Telford, Shropshire, TF7 4QH, United Kingdom (UKAS 5772)

Test Results (reference report number R4791006703)

Test type	Peak Test Pressure	Result	Classification
Test 1 – Repeat Water Penetration - Dynamic Aero Engine	600 Pa	Pass	-
Test 2 – Wind Resistance - (Serviceability) - Cavity	1360 Pa	Pass	-
Test 3 – Wind Resistance (Safety) - Cavity	2040 Pa	Pass	-
Test 4 – Impact Resistance (Retention of Performance)	-	Class 3	CAT C
Test 5 – Impact Resistance (Safety to persons)	-	High Risk	CAT C

Conclusion
A review of the test report demonstrated that the test sample successfully passed all of the above CWCT test requirements. The test sample was supplied and erected on to the test laboratory's test chamber by representatives of Marley Ltd. The dismantling was conducted on 12th February 2024 by representatives of Marley Ltd and was witnessed in full by UL International (UK) Ltd testing personnel. The report states that there was no water evident in the system in parts designed not to be wetted following the system dismantle and that the system tested fully complied with the system drawings provided by Marley Ltd at the time of the dismantle. For further details, please request a copy of Test Report No: R4791006703.

Figure 6. CWCT *Test sample mock-up design provided by Marley Ltd, report number R4791006703.*



Section 9 - Certification conditions

This UL Certificate:

1. Covers the product/system that is named and described on the front page only.
2. Should be read in conjunction with the UL Mark – Performance of Curtain Walling and Rainscreen Cladding and Cladding Support Systems for Use in the United Kingdom scheme guidance document.
3. Is granted to the company listed on the front page only.
4. Subject to availability of the referenced manufacturers system information
5. Is valid within the UK only.
6. Will remain valid for the period listed on the front page provided that the product and the manufacturer comply with the UL Mark requirements.

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