

La Roc Building Solutions Ltd

Wetherby Group
Dalton Industrial Estate
Dalton
North Yorkshire YO7 3HE

Tel: 01845 578555 Fax: 01845 578777

e-mail: technical@wetherbygroup.com

website: www.ecorend.co.uk



Agrément Certificate

18/5592

Product Sheet 1

ECOREND – THROUGH COLOURED RENDER SYSTEMS

MR1 MONOCOUCHE ONE COAT RENDER SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the MR1 Monocouche One Coat Render System, a spray- or hand-applied, one-coat render system, for use on new or existing buildings over medium density concrete blockwork manufactured in accordance with BS EN 771-3 : 2011.

(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

Weather resistance — the system tends to shed water and will considerably reduce the amount of water penetrating through the substrate (see section 6).

Performance in relation to fire — the system is classified as non-combustible and is therefore unrestricted by the national Building Regulations (see section 7).

Impact resistance — the system has adequate resistance to impact and cracking (see section 9).

Durability — the system, when applied to a medium density blockwork, will perform satisfactory for a period in excess of 25 years (see section 11).

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 First issue: 22 July 2019

John Albon
Chief Scientific Officer

Claire Curtis-Thomas
Chief Executive

The BBA is a UKAS accredited certification body – Number 113.

The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk
Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.



British Board of Agrément

Bucknalls Lane
Watford
Herts WD25 9BA

©2019

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

Regulations

In the opinion of the BBA, the MR1 Monocouche One Coat Render 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 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:	B4(1)	External fire spread
Comment:	The system is unrestricted by this Requirement. See sections 7.1 and 7.2 of this Certificate.	
Requirement:	C2(b)	Resistance to moisture
Comment:	Walls rendered with the system can satisfy this Requirement. See section 6.2 of this Certificate.	
Regulation:	7	Materials and workmanship (applicable in Wales only)
Regulation:	7(1)	Materials and workmanship (applicable in England only)
Comment:	The system is acceptable. See section 11.1 and the <i>Installation</i> part of this Certificate.	
Regulation:	7(2)	Materials and workmanship (applicable in England only)
Comment:	The system is unrestricted by this Regulation. See sections 7.1 and 7.2 of this Certificate.	



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Durability, workmanship and fitness of materials
Comment:	Use of the system satisfies the requirements of this Regulation. See sections 10 and 11.1 and the <i>Installation</i> part of this Certificate.	
Regulation:	9	Building standards applicable to construction
Standard:	2.6	Spread to neighbouring buildings
	2.7	Spread on external walls
Comment:	The system is unrestricted by these Standards, with reference to clauses 2.6.4 ⁽¹⁾⁽²⁾ , 2.6.5 ⁽¹⁾ , 2.6.6 ⁽²⁾ and 2.7.1 ⁽¹⁾⁽²⁾ . See sections 7.1 and 7.2 of this Certificate.	
Standard:	3.10	Precipitation
Comment:	Walls rendered with the system can satisfy the requirements of this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ , 3.10.2 ⁽¹⁾⁽²⁾ , 3.10.3 ⁽¹⁾⁽²⁾ and 3.10.5 ⁽¹⁾⁽²⁾ . See section 6.2 of this Certificate.	
Standard:	7.1(a)	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 applicable to conversions
Comment:	Comments in relation to 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(a)(i)	Fitness of materials and workmanship
Comment:	(b)(i)	The system is acceptable. See section 11.1 and the <i>Installation</i> part of this Certificate.

Regulation:	28(b)	Resistance to moisture and weather
Comment:		Walls rendered with the system can satisfy this Regulation. See section 6.2 of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		The system is unrestricted by this Regulation. See sections 7.1 and 7.2 of this Certificate.

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See sections: 1 *Description* (1.2), 3 *Delivery and site handling* (3.1 and 3.4) and 15 *Mixing* (15.2) of this Certificate

Additional Information

NHBC Standards 2019

In the opinion of the BBA, the MR1 Monocouche One Coat Render 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*, Part 6 *Superstructure (excluding roofs)*, Chapter 6.11 *Render*.

CE marking

The Certificate holder has taken the responsibility of CE marking the system in accordance with harmonised European Standard BS EN 998-1 : 2010. An asterisk (*) appearing in this Certificate indicates that data shown are given in the manufacturer's Declaration of Performance.

Technical Specification

1 Description

1.1 The MR1 Monocouche One Coat Render System is a self-coloured, spray- or hand-applied, one-coat polymer-modified cementitious render available in a variety of colours, for use where two-coat traditional renders would normally be specified. It is for use over medium density (1400 to 1800 kg·m⁻³) concrete blockwork. The blocks are outside the scope of this Certificate.

1.2 The system is applied to a finished thickness of 15 mm, has a weight of 22.5 kg·m⁻², and is applied to give a scraped texture surface finish.

2 Manufacture

2.1 The system is manufactured by a batch-blending process.

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 La Roc Building Solution Ltd has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by CQS (CertificateGB2005300).

3 Delivery and site handling

3.1 The render is delivered in sealed 25 kg bags on pallets. Each pallet contains 40 bags and weighs 1000 kg, and bears the Certificate holder's name, batch number and date of production.

3.2 The render is a cementitious material which is packed in waterproof packaging and can be stored outside. However, if possible store under cover, in dry conditions, and protected from moisture and frost. To avoid "warehouse set" caused by compaction, the height of the bags stacked on a pallet must not exceed 1 metre and no more than four pallets should be stacked.

3.3 Renders should be used in the order in which they are received and each delivery should be kept separate to avoid confusion. When stored unopened, the product has a shelf-life of 12 months from the date of manufacture.

3.4 The Certificate holder has taken responsibility of classifying and labelling the system under the *CLP Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures*. User must refer to the relevant Safety Data Sheet(s). The system must be handled using the routine precautions for Portland cement.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on the MR1 Monocouche One Coat Render System.

Design Considerations

4 Use

4.1 The MR1 Monocouche One Coat Render System is satisfactory for external use as a render finish over 7.3 N medium density concrete blockwork (1400 to 1800 kg·m⁻³) manufactured in accordance with BS EN 771-3 : 2011, in the exposure zones specified in section 6.2 of this Certificate and where two-coat traditional renders would normally be specified. The blocks are outside the scope of this Certificate.

4.2 New constructions to be rendered with the system should be designed and constructed in accordance with the relevant recommendations of BS EN 1996-2 : 2006 and its UK National Annex, and BS EN 13914-1 : 2016. The designer should select a construction appropriate to its location, paying due attention to design, detailing and workmanship, and the materials to be used.

4.3 It is essential that all walls where the system is applied are designed and constructed to prevent moisture penetration and the formation of condensation. Substrates must be properly prepared and suitable for receiving a rendered finish.

4.4 The scope of this Certificate covers the use of the system on areas of the wall above the damp-proof course (dpc) level.

4.5 The system is not suitable for application to previously decorated surfaces.

4.6 Additional advice for project specifications where applications are onto high- or low-absorption medium density concrete blockwork should be sought from the Certificate holder.

4.7 In common with traditional renders, it is essential that the surface to be rendered is clean and provides a sound mechanical key, to ensure a satisfactory bond between the substrate and the system. In instances where this is not the case, the Certificate holder should be consulted for advice on substrate preparation.

5 Practicability of installation

Installation is designed to be carried out by a competent skilled renderer, or a contractor, experienced with this type of system.

6 Weather resistance

6.1 The system will improve the weather resistance of a wall and provide a new decorative finish.



6.2 The system is suitable for use in exposure zones up to and including 'severe' wind driven rain index category, in accordance with PD 6697 : 2010.

6.3 The system tends to shed water and will considerably reduce the amount of water absorbed by the substrate.

7 Performance in relation to fire



7.1 The render is classified as 'non-combustible', as defined in the national Building Regulations, as it contains less than 1% organic material. This classification applies to the complete colour range.

7.2 The render is not subject to any restriction on building height or proximity to boundaries.

7.3 Designers should refer to the relevant national Building Regulations and guidance for alternative approaches and detailed conditions of use, particularly in respect of requirements for substrate fire performance and combustibility limitations for other materials and components used in the overall wall construction, for example, thermal insulation.

8 Water vapour resistance

The water vapour permeability coefficient (μ) of the render is 8.5.

9 Impact resistance

The system has adequate resistance to impact damage and cracking in all normal circumstances. Where the system may be exposed to severe impact (eg on some industrial sites), or is to be applied over existing background cracks, precautions may be required to reduce the risk of damage.

10 Maintenance



Regular maintenance checks should be carried out on the system to ensure architectural details for shedding water clear of the building are present and functioning. External plumbing, fittings, gutters and downpipes must be in good condition to minimise water penetration into the render. Any damage to the render should be repaired immediately (see section 19).

11 Durability



11.1 The render, applied over medium concrete blockwork, will perform satisfactory for a period in excess of 25 years.

11.2 The system may become discoloured over time, the rate depending on the local environment. Appearance can normally be restored by cleaning with water and a stiff bristle brush. In industrial atmospheres light colours should be avoided.

11.3 The system has adequate colourfastness for a period of in excess of 20 years but will be discoloured by water runs, and care should be taken to ensure that the measures given in section 10 are taken.

11.4 The system may suffer from algal growth in a similar manner to traditional external rendered finishes. For additional preventative advice, the Certificate holder should be consulted.

11.5 In common with traditional renders, the system may be subject to lime bloom. The incidence of this may be reduced by providing proper protection and avoiding application in adverse weather conditions. The effect is less noticeable on white or paler colours. For additional preventative advice, the Certificate holder should be consulted.

Installation

12 General

12.1 Application of the system must be carried out strictly in accordance with this Certificate, the Certificate holder's instructions and the relevant recommendations of BS EN 13914-1 : 2016. The Certificate holder should be consulted to provide a specification for each individual job. When use of the system for the first time is being considered, the Certificate holder should be consulted.

12.2 The system should not be applied in rain or mist, at temperatures above 25°C or below 5°C, or if exposure to frost is likely to occur during drying. In common with traditional sand/cement renders, the system must not be applied to frost-bound walls.

12.3 In sunny weather, work should commence on the shady side of the building and be continued round, following the sun to prevent the render drying out too rapidly.

12.4 To minimise colour shade variations and to avoid dry line jointing, continuous surfaces should be completed without a break. If breaks cannot be avoided they should be made where services or architectural features, such as reveals or lines of doors and windows, will help to mask cold joints. Where long, uninterrupted runs are planned, bags of the material should be checked for batch numbers; bags with different batch numbers should be checked for colour consistency.

13 Site survey and preliminary work

13.1 Advice concerning site survey and preliminary work for application of the system is available to the designer or rendering contractor on request from the Certificate holder.

13.2 A pre-application survey of the property must be carried out to determine its suitability to receive the system and whether repairs to the building structure are necessary before application. A specification must also be prepared by the designer for each elevation indicating:

- preliminary treatment of the background
- the position of the beads
- detailing around windows and doors, and at eaves
- dpc level
- exact position of the movement joints
- areas where flexible sealants must be used
- any alterations to external plumbing, fixtures and fittings.

13.3 The mortar in new masonry must conform to the block manufacturer's recommendations.

13.4 All necessary repairs to the building structure must be completed before application.

13.5 It is recommended that external plumbing to existing buildings be removed and, where necessary, alterations made to the underground drainage to accommodate its repositioning on the finished face of the render.

13.6 On existing buildings, purpose-made over-sills may be necessary to extend beyond the finished face of the system. Sills should have an efficient throat or drip on the underside and be designed to prevent water running onto the wall below, or into the jambs. New buildings should incorporate suitably wide sills.

13.7 In common with traditional renders, new walls to be rendered should be left for as long as possible to dry out and to minimise the subsequent substrate movement. Where this may not be practical, the Certificate holder should be consulted for additional advice.

13.8 At the top of walls, the system must be protected by an adequate overhang or by adequately sealed, purpose-made flashing.

14 Preparation of the substrate

14.1 All damage to the substrate from frost attack, salt or corrosion must be carefully repaired. Damaged blocks must be replaced and any holes or insufficiently filled joints repaired using a suitable mortar. Loose and spalling render or projecting mortar joints should be removed, and uneven surfaces levelled using an appropriate render to minimise variations in the thickness of the system. For additional advice, the Certificate holder should be consulted.

14.2 The relevant recommendations of BS EN 13914-1 : 2016 must be followed if a satisfactory bond is to be achieved. In particular, the surface to be rendered must provide a good mechanical key and adequate suction, and be free from paint, oil, soot, efflorescence, dust, lichens, mould and similar growth, or anything else that could prevent a satisfactory bond.

14.3 It is essential that the substrate to be rendered is clean. This applies to both new and old surfaces.

14.4 The substrate should be checked for suction by spraying the surface with clean water. If water is not absorbed, it will be impossible to obtain a good bond and the application should not commence until the surface has dried out. If, however, the water is readily absorbed by the substrate, the background may be too absorbent and some wetting will be necessary to prevent the water required for the hydration and workability of the system from being extracted too quickly.

14.5 Additional advice and a project specification should be sought from the Certificate holder for use on:

- low suction smooth substrates
- high suction substrates.

14.6 Wherever possible, independent scaffolding should be used to avoid the need to subsequently make good putlog holes and other breaks in the work.

15 Mixing

15.1 The MR1 Monocouche One Coat Render System is added to clean water at a rate of approximately 4.5 to 5.0 litres of water per 25 kg of the system and thoroughly mixed using a suitable paddle or pan mixer. The system should be mixed for 2 minutes, allowed to stand for 2 minutes and then re-mixed. Advice should be sought from the Certificate holder regarding suitable equipment and water/render ratios for mechanical spray application.

15.2 Where excessive concentrations of dust may be accountable, the measures defined in the Health and Safety Executive Publication EH40/05 *Occupational Exposure Limits* (2nd Edition 2011, amended March 2013) for unlisted substances must be adhered to.

15.3 In common with traditional renders, slumping of the material may occur if the mix is too wet, increasing the risk of settlement cracks developing.

16 Application

16.1 The thickness of the finished coating should be 15 mm. The scraped finish will require the application of 2 mm more render than the specified thickness, to allow for material lost in the scraping process.

16.2 The MR1 Monocouche One Coat Render System is applied by hand using a hawk and trowel, or spray applied using suitable equipment, to the required thickness of 8 mm.

16.3 Once the first pass stiffens, the second pass is applied to a thickness of approximately 9 mm and is levelled to a uniform thickness.

16.4 Scraping should take place when render sets but before it fully hardens (typically between 4 and 36 hours). It is essential that all areas are textured at the same stage of readiness to achieve an even shade of finish.

16.5 Following completion of the texturing process, any loose material should be removed using a soft brush and any minor repairs carried out using the excess material.

17 Curing

17.1 Care must be taken to protect the render from drying too rapidly owing to exposure to direct sunlight or drying wind.

17.2 The render must be protected from rain, mist and cold (less than 5°C on a falling thermometer) during the early curing period, as drying could be excessively prolonged under such circumstances.

17.3 Polythene sheeting is recommended for curing and should be arranged to hang clear of the face of the wall so as not to form a tunnel through which the wind could increase the evaporation of water from the render. The polythene sheeting must not be in intermittent contact with the render as this will produce a patchy appearance.

18 Finishing

On completion of the render installation, the surface is checked to ensure an even coverage.

19 Repair

Any damages to the render must be repaired immediately in accordance with the relevant recommendations of BS EN 13914-1 : 2016. The advice of the Certificate holder should be sought for particular installations.

Technical Investigations

20 Tests

20.1 Tests were carried out on the MR1 Monocouche One Coat Render System and the results assessed to determine:

- bond strength, resistance to hard body impact following wet/heat and freeze/thaw cycling
- water vapour permeability
- flexural and compressive strength after 7 and 28 days
- dry bulk density
- adhesion and cohesion after weathering cycles
- capillary water absorption
- water permeability on relevant substrates after weathering cycle.

20.2 An assessment of data was made of data to BS EN 998-1 : 2016 for the system in relation to fire*.

21 Investigations

The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

Bibliography

BS EN 771-3 : 2011 + A1 : 2015 *Specification for masonry units – Aggregates concrete masonry units (dense and lightweight aggregates)*

BS EN 998-1 : 2010 *Specification for mortar for masonry – Rendering and plastering mortar*

BS EN 998-1 : 2016 *Specification for mortar for masonry – Rendering and plastering mortar*

BS EN 1996-2 : 2006 *Eurocode 6 – Design of masonry structures – Design considerations, selection of materials and execution of masonry*

NA to BS EN 1996-2 : 2006 *UK National Annex to Eurocode 6 – Design of masonry structures – Design considerations, selection of materials and execution of masonry*

BS EN 13914-1 : 2016 *Design, preparation and application of external rendering and internal plastering – External rendering*

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

PD 6697 : 2010 *Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2*

22 Conditions

22.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

22.2 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.

22.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

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

22.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

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

22.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.