

# Saint-Gobain Construction Products UK Ltd t/a Saint-Gobain Weber

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Agrément Certificate  
**17/5464**  
Product Sheet 1

## MONOCOUCHE RENDERS

### WEBER.PRAL M

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to weber.pral M, a one-coat, cementitious, self-coloured render for application to suitably-prepared and sound exterior substrates of brickwork, blockwork, concrete and traditional sand/cement render.

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

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

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

**Durability** — the product, when applied to a suitably-prepared and sound substrate, will perform satisfactorily for a period in excess of 25 years (see section 11).



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 First issue: 13 November 2017

John Albon — Head of Approvals  
Construction Products

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](http://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.*

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# Regulations

In the opinion of the BBA, weber.pral M, 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 product is unrestricted by this Requirement. See section 7 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		Walls rendered with the product can satisfy this Requirement. See section 6.2 of this Certificate.
Regulation:	7	Materials and workmanship
Comment:		The product is acceptable. See section 11.1 and the <i>Installation</i> part of this Certificate.



## The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Durability, workmanship and fitness of materials
Comment:		The use of the product 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
Standard:	2.7	Spread on external walls
Comment:		The product is non combustible and is unrestricted by these Standards, with reference to clauses 2.6.5 <sup>(1)</sup> , 2.6.6 <sup>(2)</sup> and 2.7.1 <sup>(1)(2)</sup> . See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		Walls rendered with the product can satisfy the requirements of this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> , 3.10.2 <sup>(1)(2)</sup> , 3.10.3 <sup>(1)(2)</sup> and 3.10.5 <sup>(1)(2)</sup> . See section 6.2 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.
Regulation:	12	Building standards applicable to conversions
Comment:		All comments given for the product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> . (1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic).



## The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	23(a)(b)(i)	Fitness of materials and workmanship
Comment:		The product 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 product can satisfy this Regulation. See section 6.2 of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		The product is unrestricted by this Regulation. See section 7 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: 3 *Delivery and site handling* (3.1 and 3.4) and 15 *Mixing* (15.2) of this Certificate.

# Additional Information

## NHBC Standards 2017

In the opinion of the BBA, weber.pral M, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 6.11 *Render*.

## CE marking

The Certificate holder has taken the responsibility of CE marking the product 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.

## Environmental Information

The product has been assessed using BRE Global's Environmental Profiles Methodology (2008) and has been awarded a BBA Environmental Profile Certification – 10/EP1001 for weber.pral M and weber.pral D products.

## Technical Specification

### 1 Description

1.1 weber.pral M is a one-coat, self-coloured cementitious render containing white cement, mineral aggregates, pigments and additives.

1.2 The product is available in a range of 24 colours.

1.3 The product is applied to a finished thickness of 15 mm and has an applied weight of between 22 and 25 kg·m<sup>-2</sup>.

1.4 weber.rend aid is a polymer-modified cement and sand mix, to be mixed with water and applied on low-absorption substrates to improve adhesion.

### 2 Manufacture

2.1 The product is manufactured using batch processes by blending measured quantities of component materials in suitable mixers.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The management system of Saint-Gobain Weber has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 and BS EN ISO 14001 : 2004 by BSI (Certificates FM 641234 and EMS 641233 respectively).

### 3 Delivery and site handling

3.1 The product is delivered in sealed 25 kg bags on pallets. Each pallet holds 40 bags and weighs 1000 kg. Each bag bears the Certificate holder's name, batch number, mixing instructions and the BBA logo incorporating the number of this Certificate.

3.2 The product is a cementitious material and must be stored off the ground under cover, in dry conditions and protected from moisture and frost. To avoid 'warehouse set' caused by compaction, the height of bags stacked on a pallet must not exceed 1 m and no more than four pallets should be stacked.

3.3 The product should be used in the order in which it is 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 the responsibility of classifying and labelling the product under the *CLP Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s). The product 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 weber.pral M.

## Design Considerations

### 4 Use

4.1 weber.pral M is satisfactory for external use as a one-coat render on new or existing buildings, on suitably prepared and sound backgrounds of brickwork, blockwork, concrete and traditional sand/cement render.

4.2 New constructions to be rendered with the product 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 product 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 assessment and this Certificate only include applications to walls above the damp-proof course (dpc) level. The product has not been assessed for use:

- on woodwool slabs
- on metal lathing
- over painted brickwork and similar backgrounds
- over timber-frame construction
- over metal-frame construction
- on the backs of parapet and screen walls rendered on the face
- on horizontal surfaces exposed to the weather, such as ledges, sills and copings
- as rendering to chimney stacks.

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

4.6 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 product. In instances where this is not the case, the Certificate holder should be consulted for advice on substrate preparation.

## 5 Practicability of installation

The product is designed to be installed by a skilled renderer, or a contractor, experienced with this type of product.

## 6 Weather resistance

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



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

6.3 The product tends to shed water and considerably reduces the amount that will be absorbed by the substrate.

## 7 Performance in relation to fire



The product is classified as 'non-combustible' (as defined in the national Building Regulations) as it contains less than 1% organic material and is therefore unrestricted by these Regulations. This classification applies to the complete colour range.

## 8 Water vapour resistance

Tests conducted on a 20.7 mm thick application of the product achieved a water vapour resistance of  $1.85 \text{ MN}\cdot\text{s}^{-1}\cdot\text{g}^{-1}$ .

## 9 Impact resistance

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

## 10 Maintenance



Regular maintenance checks should be carried out to ensure that 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 product, when applied to a suitable, sound substrate, will perform satisfactorily for a period in excess of 25 years.

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

11.3 The product has adequate colourfastness for a period in excess of 20 years but it will be discoloured by water runs. This can be minimised by undertaking the measures given in section 10.

11.4 The product 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 product may be susceptible to lime bloom. The incidence of this may be reduced by proper protection and by avoiding application in winter or adverse weather conditions. The effect is less noticeable on white or paler colours. For additional preventative advice, the Certificate holder should be consulted.

## 12 General

12.1 Application of weber.pral M must be carried out strictly in accordance with this Certificate, the Certificate holder's instructions and specifications, and the relevant recommendations of BS EN 13914-1 : 2016. When use of the product for the first time is being considered, the Certificate holder should be consulted.

12.2 The product should not be applied in rain or mist, at temperatures below 5°C or above 35°C, or if exposure to frost is likely to occur during curing. In common with traditional sand/cement renders, the product 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 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 mask cold joints. Where long, uninterrupted runs are planned, bags of the product 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 the site survey and preliminary work for application of the product 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 product 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 beads
- detailing around windows and doors and at eaves
- dpc level
- exact position of movement joints
- areas where flexible sealants must be used
- any alterations to external plumbing, fixtures and fittings.

13.3 Tests should be conducted in accordance with BS EN 772-5 : 2016 to determine the salt content of the substrate. The results of the tests should be reported to the Certificate holder to enable advice to be given on the suitability of the substrate to receive the product.

13.4 The mortar in new brickwork must conform to the Certificate holder's specification.

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

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

13.7 On existing buildings purpose-made over-sills may be necessary to extend beyond the finished face of the product. 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.

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

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

## 14 Preparation of substrate

14.1 All damage to the substrate from frost attack, salts or corrosion must be carefully repaired. Damaged bricks or 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 must be levelled using an appropriate render to minimise variations in the thickness of the product. 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 product must not be used on water-repellent substrates, plaster or painted plaster, or coatings.

14.5 When the substrate consists of different materials or a material of variable suction, the recommendations of BS EN 13914-1 : 2016 and the Certificate holder's instructions must be followed to ensure even quality and appearance of the render.

14.6 When applying the product to porous or high-suction substrates, particularly in warm weather, the surface should be wetted on the day before the rendering is applied. A further mist spray of clean water may be required prior to application of the render.

14.7 On backgrounds of low suction (eg dense smooth concrete, or stone), weber.rend aid must be used. The advice of the Certificate holder should be sought concerning special procedures necessary to provide an adequate key.

14.8 For very smooth or very irregular surfaces, the advice of the Certificate holder should be sought.

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

14.10 Angles may be formed using PVC beads or timber battens. The Certificate holder can advise on suitable materials.

## 15 Mixing

15.1 weber.pral M is added to clean water at a rate of approximately 5.5 litres of water per 25 kg of product. The mixture is prepared mechanically in either a tumble mixer, with a drill and paddle, or a suitable render spray machine. The mixing should take between 5 and 10 minutes, until a homogeneous mass is obtained.

15.2 Where excessive concentrations of dust may accumulate, the measures defined in the Health and Safety Executive Publication EH40/2005 *Workplace exposure limits for unlisted substances* (2nd Edition 2011, amended March 2013) should be adhered to. It should be ensured that the current edition is being followed.

15.3 Once the product has been mixed, additional water should not be added. The product may be remixed to regain a workable consistency.

15.4 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 Application may be carried out either mechanically by spray application, or manually using a trowel or float. Advice should be sought from the Certificate holder regarding suitable equipment and water/render ratios for mechanical spray application.

16.2 The thickness of the finished coating, whether scraped or with a raised texture, should not be less than 15 mm at its lowest point or more than 25 mm. Scraped finishes will require the application of 2 to 3 mm more than the specified thickness to allow for material lost in the scraping process.

### Traditional application

16.3 The product can be applied by traditional rendering methods in a one-coat operation to a minimum finished thickness of 15 mm.

16.4 On low-suction surfaces, a first pass of just over half the specified thickness, followed by a second pass when the first pass has 'picked up' but not set, may be necessary.

16.5 The product must be allowed to harden for between 5 and 16 hours, depending on the ambient temperature, before the surface is scraped using a suitable tool.

16.6 No areas, however small, should be left unscraped, otherwise variations will occur in both shade and texture. Scraping should be sufficient to remove the surface skin of mortar to expose the larger particles of aggregate. After scraping, the surface should be gently brushed to remove dust.

### Spray application

16.7 The spray gun must be held at 90°, at a distance of between 75 and 100 mm from the work surface, so that ribbons of the material are reasonably flat to facilitate ruling.

16.8 For a roughcast finish, the first pass is applied to a minimum thickness of 10 mm and ruled level.

16.9 It is essential that each pass of the product is applied using adequate pressure to exclude air and to ensure a satisfactory bond.

16.10 A second pass of the product is applied after one to two hours, using a swirling action of the gun at a distance of 600 to 900 mm from the work surface. To ensure an even textured appearance, the gun should be held at 90° to the work surface.

16.11 The required texture can be achieved by fitting a suitable spray cap and adjusting the air supply to the gun.

16.12 If a scraped finish is desired, the product is applied and ruled level to a uniform finished thickness. When sufficiently hard, generally between 5 and 16 hours after application, the surface is scraped using a suitable tool, to a maximum uniform thickness of 25 mm.

## 17 Curing

17.1 The product must be protected from rain, mist or cold (below 5°C on a falling thermometer) during the early curing period, as drying could be excessively prolonged under such circumstances.

17.2 Polythene sheeting is recommended for curing, and should be arranged to hang clear of the face of the wall in such a way that it does not 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 product as this will produce a patchy appearance.

17.3 Care must be taken to protect the render from drying too rapidly owing to exposure to direct sunlight or drying wind. In these conditions, the applied render should be damped down or gently sprayed with water occasionally during the first three days after application, to ensure complete hydration of the cement.

## 18 Finishing

18.1 On completion of the rendering, the surface must be checked to ensure an even coverage, texture and consistency of colour.

18.2 Other finishes may be produced. Advice on how to achieve these should be sought from the Certificate holder.

## 19 Repair

Any damage 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 product and the results assessed to determine:

- flexural and compressive strength of mortars
- effect of accelerated ageing on bond strength\*
- coefficient of linear thermal expansion
- expansion on wetting
- water absorption\*
- initial surface absorption
- water vapour permeability\*
- resistance to hard body impact.

20.2 An evaluation was made of test data relating to:

- fire propagation
- surface spread of flame
- bond strength to Fletton and Capel bricks
- water absorption through the product into brickwork and water absorption directly into bricks\*
- examination of bond between bricks and the product by thin-section microscopy
- organic content.

## 21 Investigations

21.1 Visits were carried out to installations in progress to assess the practicability of installation.

21.2 Visits were made to an early installation of the product which had undergone natural exposure, to assess its early age performance, and to existing sites where a product of similar composition had been installed and subjected to four years' natural exposure.

21.3 A user survey was carried out to confirm the performance of the product in service.

21.4 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 772-5 : 2016 *Methods of test for masonry units — Determination of the active soluble salts content of clay masonry units*

BS EN 998-1 : 2010 *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*

## Conditions of Certification

### 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.