NSAI Agrément

IRISH AGRÉMENT BOARD
CERTIFICATE NO. 03/0180
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Weber Monocouche Rendering System

Enduit de Surface
Oberflachenbeschichtung

NSAI Agrément (Irish Agrément Board) is designated by Government to issue European Technical Approvals.

NSAI Agrément Certificates establish proof that the certified products are **'proper materials'** suitable for their intended use under Irish site conditions, and in accordance with the **Building Regulations 1997 to 2017**.

PRODUCT DESCRIPTION:
This Certificate relates to Weber Monocouche Rendering System developed by Weber in France as a single coat rendering system for application externally on masonry walls. It is a cement based render containing a water retention additive and a colouring pigment. It is a ready mixed render and differs from traditional render in the use of special admixtures and specific selected aggregates. It is applied in one coat or through a number of passes as a single layer render. It is easier to apply than traditional renders as it has greater workability and adhesion in the plastic stage. It is available in a range of colours. It can also be applied as an internal plaster on the inner face of masonry walls. Overall thickness generally varies from a minimum of 15mm to a maximum finished thickness of 25mm. Unless the background masonry has too high or too low a suction, the Weber Monocouche Rendering System can be applied without a scud (splatter dash) coat. For higher and lower suctions, or where mechanical key is poor, a scud coat of rend-aid is necessary.

This Certificate certifies compliance with the requirements of the Building Regulations 1997 to 2017.

This Certificate is generally a confirmation of BBA certificate no. 05/4268.

USE:
The Weber Monocouche Rendering System is designed principally for weatherproofing external vertical concrete block or brick masonry walls, but can also be used for external or internal decorative renders. Weber renders are applied over rigid masonry substrates.

Additional uses for which Weber renders may be suitable include normal aggregate concrete, expanded clay or expanded aggregate concrete, coarse block or brick masonry, lightweight block masonry, hollow concrete masonry, lightweight cellular fired clay block masonry including thin joint glued construction, stone masonry.

MANUFACTURE AND MARKETING:
The product is manufactured by Weber at their factory in Telford, Shropshire.

The product is marketed by Saint-Gobain Construction Products UK Ltd t/a Saint-Gobain Weber Ltd., Dickens House, Enterprise Way, Flitwick, Bedfordshire MK45 5BY.

1.1 ASSESSMENT

In the opinion of NSAI Agrément, the Weber Monocouche Rendering System, if used in accordance with this Certificate, meets the requirements of the Building Regulations 1997 - 2017 as indicated in Section 1.2 of this Certificate.

1.2 BUILDING REGULATIONS 1997 to 2017

REQUIREMENT:

Part D – Materials and Workmanship

D3 – The Weber Monocouche Rendering System, as certified in this Certificate, is comprised of 'proper materials' fit for their intended use (see Part 4 of this Certificate).

D1 – The Weber Monocouche Rendering System, as certified in this Certificate, meets the requirements for workmanship.

Part A - Structure

A1 – Loading

The Weber Monocouche Rendering System, as certified in this Certificate, has adequate strength and stability (see Parts 3 and 4 of this Certificate).

A2 – Ground Movement

The Weber Monocouche Rendering System, as certified in this Certificate, can be readily used on masonry walls of properly designed buildings to meet the requirements in respect of ground movement.

Part B – Fire Safety

B2 – Internal Fire Spread (Linings)
B3 – Internal Fire Spread (Structure)
B4 – External Fire Spread

Part B Vol 2 – Fire Safety

B7 – Internal Fire Spread (Linings)
B8 – Internal Fire Spread (Structure)
B9 – External Fire Spread

The Weber Monocouche Rendering System, as certified in this Certificate, is non-combustible and has a Class 0 surface spread of flame rating. It is readily amenable to fire safety design across the range of fire resistance requirements for buildings of all purpose groups and can meet the requirements for fire safety.

Part C – Site Preparation and Resistance to Moisture

C3 – Dangerous Substances
C4 – Resistance to Weather and Ground Moisture

The Certificate holder has taken the responsibility of classifying and labelling the system components under CLP Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures. Users must refer to the relevant Safety Data Sheets.

The Weber Monocouche Rendering System does not compromise the fitting of adequate damp-proof courses, appropriate Radon and dangerous substances protection membranes and gas handling systems to meet the requirements. The Weber Monocouche Rendering System, when properly applied on adequately designed buildings, will provide adequate weather resistance in all exposures, as specified in Part 4 of this Certificate.

Part E – Sound

E1 – Airborne Sound (Walls)

The Weber Moncouche Rendering System will complement the airborne sound resistance of concrete or masonry walls and can be readily included in the design and specification of party walls to meet the airborne sound requirements.

Part L – Conservation of Fuel and Energy

L1 – Conservation of Fuel and Energy

The Weber Monocouche Rendering System will contribute to the thermal resistance of concrete or masonry walls and can be readily included in the analysis of the thermal performance of external walls for the determination of the elemental or overall U-values to meet this requirement.

2.1 PRODUCT DESCRIPTION

Weber Monocouche Renders provide a one coat solution that protects and decorates the exterior walls of buildings, providing a weatherproof finish which allows the structure to breathe. They are supplied pre-blended and bagged under factory conditions and only require clean water to be added on site prior to use. Renders are cement based containing a water retention additive and a colouring pigment. These ready-mixed renders differ from traditional render in the use of special admixtures and specifically selected aggregates. Application is as a single coat system in which the thickness can be built up through a number of closely spaced passes. As the system has greater workability and adhesion in the plastic stage, it is easier to apply than traditional renders. It is available in a range of colours. It can also be applied as an internal plaster on the inner face of masonry walls. Overall thickness varies from a minimum of 15mm to a maximum finished thickness of 25mm. Weber Monocouche Renders can normally be applied without a scud (splatter dash) coat. However, for higher and lower suctions and areas with inadequate suction a scud coat of weber.rend-aid is necessary.

Weber Monocouche Renders are available in two distinct variants:

1. weberpral M

weber.pral M is mechanically mixed and pump applied normally in two passes direct onto the prepared substrate. It is finished with a variety of textures with the use of hand tools. Finishes include scraped, scraped ashlar or spray roughcast. weber.pral M is also suitable for manual application.

2. weberpral D

weber.pral D is a mechanically mixed general purpose Monocouche render, applied manually or by pump with a scraped finish.

2.1.1 Ancillary Items

Materials required with the renders include:

- Rigid PVC or stainless steel drip, stop, movement and corner beads.
- Alkali resistant fibreglass mesh.
- Weberend aid.

Special equipment and tools required include:

- Render pump.
- Spray gun.
- Plasterer's knife.
- Trowel.
- Steel trowel.
- Long and short-toothed scrapers.
- Ashlar cutter with fixed blades.
- Ashlar cutter with interchangeable blades.
- Plasterer's straight edge.
- Thickness gauge.
- Soft bristle brushes.
- Measuring bucket.

2.2 MANUFACTURE

Weber Monocouche Renders are manufactured to specially formulated batched mixtures of white cement, ground limestone, calcium hydroxide (lime), selected aggregates, performance enhancing admixtures, and a range of mineral pigments. Admixtures include organic additives and waterproofing agents. All individual components of each specific batch mixture are tested for conformance with the particular specifications before manufacture. Component materials which are supplied by others are accepted only from qualified suppliers. Aggregates are supplied fully graded and to tight specification tolerances.

2.2.1 Quality Control

The manufacturer operates and maintains a documented quality system to ensure that product conforms to the specified requirements. The quality control system includes handling, storage, packaging and delivery. Product is bagged in moisture resistant paper bags with printed instructions on storage requirements. A test laboratory is operated at the factory where routine quality control testing is carried out on the Weber Monocouche Renders. The laboratory is subject to third party surveillance.

2.3 DELIVERY, STORAGE AND MARKING

2.3.1 Marking and Product Identification Details

Weber Monocouche Renders are bagged into sealed moisture-resistant paper bags at the end of the production run and stored on pallets. Each bag has printed on it the manufacturer's name, a production trace number, the NSAI Agrément logo with the number of this Certificate, date of manufacture, manufacturing address, name of particular product, and weight of contents.

2.3.2 Delivery

Weber Monocouche Renders are delivered on pallets in 25kg sealed, moisture resistant paper bags. Each pallet contains 40 bags and weighs approximately 1000kg.

2.3.3 Protection of Materials

Weber Monocouche Renders should be stored in dry conditions, off the ground and in a proper store. Bags should be used in rotation.

2.4 INSTALLATION

2.4.1 Installation Control

Application of the Weber Monocouche Renders must be carried out in accordance with the Certificate holder's instructions and the relevant recommendations of IS EN 13914-1:2016 *Design, preparation and application of external rendering and internal plastering – External rendering.*

2.4.2 Site Survey and Preliminary Work

A pre-application survey of the property is carried out to determine the suitability of the substrate to receive the render and whether repairs to the building structure are necessary before application. A specification is prepared by the designer or rendering contractor for each project indicating.

- Preliminary treatment of the background
- Position of beads
- Detailing around windows, doors and eaves
- Damp-proof course level
- Exact position of movement joints
- Area where flexible sealants must be used
- Any alterations to external plumbing

Older buildings at coastal locations should be checked for salt content of the substrate. Test results will determine the suitability of the substrate to receive a render. In addition the Weber Monocouche Renders should not be applied to any area where there is evidence of corrosion of steel reinforcement in the masonry.

2.4.3 Preparation of Substrate

Weber Monocouche Renders should only be applied to mature stable surfaces. A minimum of one month should be allowed following completion of the wall construction before application of the render commences. In slow drying situations, a longer interval should be allowed. All substrates must be clean, sound and dust free. As with traditional renders, Weber Monocouche Renders rely on a combination of suction and surface texture to achieve bond. The recommendations set out in IS EN 13914-1:2016 should be followed. It is essential that all steps are taken to ensure that a satisfactory bond is achieved between the render and the substrate.

(i) Concrete block and clay brick surfaces

All blockwork and brickwork should be designed and constructed in accordance with current standards and good building practice. In particular, the requirements of IS EN 1996-1-1:2005+A1:2012 *Eurocode 6 – Design of masonry structures – Part 1-1: General rules for reinforced and unreinforced masonry structures (including Irish National Annex)* must be met.

(ii) Concrete surfaces

For concrete surfaces, all dirt, dust, loose matter, efflorescence, formwork oil and organic growth must be removed by brushing and washing with suitable solutions, as required, before render is applied.

In all situations, smooth surfaces should be keyed before applying Weber Monocouche Renders. This can be achieved mechanically by using a bush hammer or needle gun or by applying a stipple coat of weberend aid of 2 to 3mm maximum thickness. The weberend aid stipple coat should be left with a textured/keyed surface and allowed to cure before application of Weber Monocouche Render.

High suction surfaces should be prepared by pre-dampening with water at least 24 hours before application of Weber Monocouche Renders. Alternatively, a stipple coat of weberend aid may be applied as described above.

2.4.4 Application

It is essential that application of Weber Monocouche Renders is carried out by experienced rendering contractors, strictly in accordance with the Certificate holder's instructions and this Certificate.

Weber Monocouche Renders are mixed with a drill and whisk or a free fall mixer and are normally applied by traditional methods in a one coat operation to a minimum thickness of 15mm. weberpral M is normally applied with a spray rendering machine (cement mortar pump type). Although usually hand applied, weberpral D may be spray applied with a continuous mixing and pumping machine with separate mixing and pumping chambers. The finished thickness for Weber Monocouche Renders must satisfy the weatherproof and decorative requirements of the installation.

Weber Monocouche Renders should not be applied onto saturated surfaces and should also be protected from rainwater during application and for at least 5 to 10 hours after application. Finished render should be protected from weather and ongoing site work until fully cured. As with all cement based products, application should not be carried out in freezing or thawing conditions, in temperatures below 5^{o}C, or above 35^{o}C, and where there is a risk of frost damage to freshly applied render. For porous or high suction backgrounds, the working surface should be wetted on the day before rendering is to be applied.

Use of an appropriate render thickness gauge is recommended throughout the application of Weber Monocouche Renders.

To maintain consistency, panels should be completed in sequence around the building.

Spray Roughcast

Depending on the required finished thickness, a first pass is spray applied to a minimum thickness of 10mm and ruled level. A second texture pass is applied between 1 and 2 hours after the first to form a single monolithic coat with a minimum thickness of 15mm. Total finished thickness should be between 15 and 25mm.

Scraped Finish

The Weber Monocouche Render should be applied to the suitable substrate in a one or two pass operation to a minimum thickness of 18mm, or to a maximum thickness of 28mm (2 – 3mm will be removed by the scraping process to give a finished thickness of minimum 15mm, maximum 25mm). It should then be ruled level and allowed to harden for between 5 and 16 hours (sometimes a longer period may be necessary depending on weather and background conditions).

When the Weber Monocouche Render is green (set but not fully hardened) it should be scraped with a circular action using a scraping tool. It is essential that this is done carefully and evenly, ensuring all laitance is removed and that not part is missed. Thoroughly brush down the surface of the scraped finish using a soft bristle brush.

Ashlar Features

Apply the Weber Monocouche Render in two passes to an initial thickness of between 20mm and 28mm to allow for an ashlar recess from 2mm deep up to a maximum of 10mm.

Ensure a minimum of 15mm thickness is maintained at the base of the recess for sheltered to moderate exposure.

Rule level and spatula flat. When the material is still green, scrape the surface as detailed in the guidance notes for scraped finish.

Immediately after scraping, mark out and cut the ashlar effect using Weber ashlar tools to produce the desired profile. Thoroughly brush down the surface of the render using a soft bristle brush.

The Weber Monocouche Render will set and gain hardness in a similar manner to conventional renders.

Protection from unfavourable weather conditions should always be provided during application and early age curing.

2.4.5 Design Details

(i) Parapets

Weber Monocouche Renders must not be applied onto flat or sloping surfaces. An adequate flashing must always be provided to prevent water penetrating behind the render.

(ii) Window and Door Reveals

Alkali resistant mesh reinforcement must be included in rendering along the lintel. External arrisses are formed using bevelled timber battens or by using stainless steel beads. In the interest of durability, stainless steel expansion joint beading should be used (see Part 4 of this Certificate). Beads must not be used at corners where ashlar features are being formed.

(iii) Ground Level Detail

A bellcast or stop bead should be provided 150mm above ground level or above the DPC where the DPC is at a higher level. The mesh should be bedded in a thin coat of the Weber Monocouche Render as a preliminary process to the first coat.

(iv) Dissimilar Backgrounds

Where different backgrounds meet, in areas of weak substrate or areas subject to high stress (corners of doors, windows), joints should be covered by alkali resistant mesh reinforcement prior to applying the Weber Monocouche Render. The mesh should be bedded in a thin coat of Weber Monocouche Render as a preliminary process to the first coat.

(v) Expansion Joints

Where expansion or movement joints occur they should be brought through to the surface and not covered by the Weber Monocouche Render. Advice should be sought from the Certificate holder on movement beads that can be used at expansion joint locations. In the interest of durability, stainless steel expansion joint beading should be used (see Part 4 of this Certificate).

Part Three / Design Data 3

3.1 GENERAL
Weber Monocouche Renders will enhance the weather resistance of concrete and masonry walls and provide a decorative finish. The renders are satisfactory for external application to suitably prepared brickwork, blockwork and concrete suited to receive a rendered finish. Wall design should be in accordance with that described in Part 2 of this Certificate (see Section 2.4 in particular).

3.2 STRENGTH AND STABILITY
Weber Monocouche Renders comply with the relevant sections of IS EN 13914-1:2016. The renders should not be applied in areas where there is evidence of corrosion of steel reinforcement or other metal products in the background. Weber Monocouche Renders are not suitable for application over gypsum plaster or previously decorated surfaces.

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

3.3 STRUCTURAL FIRE SAFETY
Weber Monocouche Renders are non-combustible and has a Class 0 spread of flame rating in accordance with Table A6 of TGD to Part B of the Building Regulations 1997 to 2017.

The renders, being non-combustible, do not contribute to either fire propagation or surface flame spread. The renders are non-toxic in fire conditions.

3.4 WEATHER RESISTANCE
Weber Monocouche Renders, when used on properly designed masonry construction, and applied in accordance with this Certificate, the manufacturer's instructions and the sections of IS EN 13914-1:2016 regarding thickness and exposure will have adequate resistance to wind and wind-driven rain in all exposures (normal and severe) in Ireland. Appendix C of BS 8104:1992 *Code of practice for assessing exposure of walls to wind driven rain*, together with information from the Irish Meteorological Office should be consulted. It is important that application and building design/construction details take full account of likely weather exposure conditions. Weber Monocouche Renders tend to shed water thus considerably reducing the amount that can be absorbed by the substrate during rain.

Part Four / Technical Investigations 4

4.1 BEHAVIOUR IN FIRE
When tested in accordance with BS 476-6:1989+A1:2009 *Fire tests on building materials and structures – Method of test for fire propagation for products* and BS 476-7:1997 *fire tests on building materials and structures – Method of test to determine the classification of the surface spread of flame of products*, Weber Monocouche Renders achieved a fire propagation index, I, of 1.5, a sub-index, i, of 1.24 and a Class 1 surface. In accordance with Table A6 of TGD to Part B of the Building Regulations 1997 to 2017, Weber Monocouche Renders have a Class 0 spread of flame classification and are non-combustible.

4.2 THERMAL CONDUCTIVITY
On the basis of material composition and density, the thermal conductivity (λ) value of the Weber Monocouche Renders is 0.48W/mK.

4.3 WATER VAPOUR RESISTANCE
Tests show that Weber Monocouche Renders, at a thickness of 20.7mm can be expected to have a water vapour resistance of 1.85MNs/g. The renders are not vapour barriers and are unlikely to lead to interstitial condensation.

4.4 DURABILITY
External render systems can last in excess of 40 years in accordance with BS 7543:2015 *Guide to durability of buildings and building elements, products and components* subject to normal use, regular inspection and maintenance. It is important to note that the durability of the render system is entirely dependent on the correct installation of the product in accordance with this Certificate, the manufacturer's instructions, IS EN 13914-1:2016 and ongoing care and maintenance as described in Section 4.5 of this Certificate. Critical details include rendering at window sills, raised features,

junctions with eaves and verges, and the use of suitably designed overhangs and flashings. Reference should be made to IS EN 13914-1:2016 for general advice on design, in particular on the use of angle, stop and movement joint beads.

The history of the colour retention of the Weber Monocouche Renders is good. The product is less susceptible to crazing and cracking than traditional renders. The product may become discoloured with time depending on the local environment. Appearance can normally be restored by cleaning with water and a stiff brush. In industrial atmospheres light colours should be avoided. The product may suffer from algae or lichen growth in a similar manner to traditional finishes; proprietary treatments are available to treat these and the Certificate holder should be contacted for advice on these treatments. In order to avoid lime bloom staining, the manufacturer recommends that the product should not be used below DPC level.

4.5 MAINTENANCE AND REPAIR

While Weber Monocouche Renders can be assumed to be low maintenance, it is recommended that periodic checks are carried out to ensure that architectural details for shedding water clear of the building are still functioning properly.

Repairs may be necessary occasionally and an assessment of the cause should be undertaken before repairs are carried out. The advice of the Certificate holder should be sought for particular installations, and repairs shall be carried out in accordance with IS EN 13914-1:2016.

4.6 TESTS AND ASSESSMENTS WERE CARRIED OUT TO DETERMINE THE FOLLOWING:

- 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

4.7 OTHER INVESTIGATIONS

(i) Existing data on product properties in relation to weather resistance and the effect on mechanical strength/stability and durability were assessed.

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

(iii) Site visits were conducted to assess the practicability of installation and the history of performance in use of the product.

4.8 CE MARKING

The manufacturer has taken responsibility of CE marking the Weber Monocouche Rendering System in accordance with harmonised European Standard EN 998-1:2010 *Specification for mortar for masonry – Part 1: Rendering and plastering mortar*. An asterisk (*) appearing in this Certificate indicates that data shown is an essential characteristic of the product and declared in the manufacturer's Declaration of Performance (DoP). Reference should be made to the latest version of the manufacturer's DoP for current information on any essential characteristics declared by the manufacturer.

5.1 National Standards Authority of Ireland ("NSAI") following consultation with NSAI Agrément has assessed the performance and method of installation of the product/process and the quality of the materials used in its manufacture and certifies the product/process to be fit for the use for which it is certified provided that it is manufactured, installed, used and maintained in accordance with the descriptions and specifications set out in this Certificate and in accordance with the manufacturer's instructions and usual trade practice. This Certificate shall remain valid for five years from date of latest revision so long as:

(a) the specification of the product is unchanged.

(b) the Building Regulations 1997 to 2017 and any other regulation or standard applicable to the product/process, its use or installation remains unchanged.

(c) the product continues to be assessed for the quality of its manufacture and marking by NSAI.

(d) no new information becomes available which in the opinion of the NSAI, would preclude the granting of the Certificate.

(e) the product or process continues to be manufactured, installed, used and maintained in accordance with the description, specifications and safety recommendations set out in this certificate.

(f) the registration and/or surveillance fees due to NSAI Agrément are paid.

5.2 The NSAI Agrément mark and certification number may only be used on or in relation to product/processes in respect of which a valid Certificate exists. If the Certificate becomes invalid the Certificate holder must not use the NSAI Agrément mark and certification number and must remove them from the products already marked.

5.3 In granting Certification, the NSAI makes no representation as to;

(a) the absence or presence of patent rights subsisting in the product/process; or

(b) the legal right of the Certificate holder to market, install or maintain the product/process; or

(c) whether individual products have been manufactured or installed by the Certificate holder in accordance with the descriptions and specifications set out in this Certificate.

5.4 This Certificate does not comprise installation instructions and does not replace the manufacturer's directions or any professional or trade advice relating to use and installation which may be appropriate.

5.5 Any recommendations contained in this Certificate relating to the safe use of the certified product/process are preconditions to the validity of the Certificate. However the NSAI does not certify that the manufacture or installation of the certified product or process in accordance with the descriptions and specifications set out in this Certificate will satisfy the requirements of the Safety, Health and Welfare at Work Act 2005, or of any other current or future common law duty of care owed by the manufacturer or by the Certificate holder.

5.6 The NSAI is not responsible to any person or body for loss or damage including personal injury arising as a direct or indirect result of the use of this product or process.

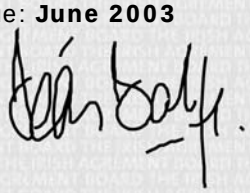
5.7 Where reference is made in this Certificate to any Act of the Oireachtas, Regulation made thereunder, Statutory Instrument, Code of Practice, National Standards, manufacturer's instructions, or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this Certification.

NSAI Agrément

This Certificate No. **03/0180** is accordingly granted by the NSAI to **Saint-Gobain Construction Products UK Ltd t/a Saint-Gobain Weber Ltd.** on behalf of NSAI Agrément.

Date of Issue: **June 2003**

Signed



Seán Balfe
Director of NSAI Agrément

Revision: March 2010, November 2017

- Change of company name.
- References to Building Regulations and standards updated, product specifications updated to reflect manufacturer's DoP.

Readers may check that the status of this Certificate has not changed by contacting NSAI Agrément , NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (01) 807 3800. Fax: (01) 807 3842. www.nsai.ie