

The Irish Agrément Board is designated by Government to issue European Technical Approvals.

Irish Agrément Board 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 2002**.

The Irish Agrément Board operates in association with the **National Standards Authority of Ireland (NSAI)** as the National Member of UEAtc.



## PRODUCT DESCRIPTION AND USE

This certificate relates to **weber** Monocouche Rendering System developed by **weber building solutions** 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** Rendering System can be applied without a scud (spatter dash) coat. For higher and lower suctions, or where mechanical key is poor, a scud coat of **rend-aid** is necessary.

The **weber** Rendering System is covered by CSTB French Agrément Certificate No. 2669-2 and BBA Agrément Certificates Nos. 88/2032, 90/2457 and 97/3435.

## USE

The **weber** 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 **weber** Rendering System is manufactured by **weber sbd** at their factory at Ballyclare, Co. Antrim, Northern Ireland and Flitwick, Bedfordshire, England.

## MARKETING

The **weber** Monocouche Rendering System is marketed by Saint-Gobain Weber Limited, Dickens House, Enterprise Way, Flitwick, Bedfordshire MK 45 5BY.

**1.1 ASSESSMENT**

In the opinion of the Irish Agrément Board (IAB), the **weber** Rendering System is satisfactory for the purpose defined above and can meet the requirements of the Building Regulations 1997 to 2002 as indicated in section 1.2 of this certificate.

**1.2 BUILDING REGULATIONS 1997 to 2002****REQUIREMENTS:****PART D – Materials and Workmanship**

**D3** – The **weber** Monocouche Rendering System, as certified in this Irish Agrément Certificate, is comprised of proper materials fit for their intended use. (See Parts 2,3,4 of this certificate).

**D1** – The **weber** Monocouche Rendering System, used in accordance with this Irish Agrément Certificate, can meet the requirements for workmanship.

**PART A – Structure****A1 – Loading**

The **weber** Monocouche Rendering System, as certified in this Irish Agrément Certificate, has adequate strength and stability. (See Parts 3 and 4 of this Irish Agrément Board certificate).

**A2 – Ground Movement**

The **weber** Monocouche Rendering System, as certified in this Irish Agrément 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**

The **weber** Monocouche Rendering System, as certified

in this Irish Agrément Certificate, is incombustible, has a Class 0 surface spread of flame rating and 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.

**PART C – Site Preparation and Resistance to Moisture****C3 – Dangerous Substances****C4 – Resistance to Weather and Ground Moisture**

The **weber** Monocouche Rendering System, as covered in this certificate, 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** 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** Monocouche 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 of this Regulation.

**PART L – Conservation of Fuel and Energy****L1 – Conservation of Fuel and Energy**

The **weber** 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 the requirements of this Regulation.

**2.1 DESCRIPTION****2.1.1 General**

**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 (spatter dash) coat. However, for higher and lower suction areas and areas with inadequate suction a scud coat of **rend-aid** is necessary.

**weber** Monocouche Renders are available in three distinct variants:

**(i) monoprал cemrend:**

**monoprал cemrend** 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. **monopral** is also suitable for manual application.

#### (ii) **decorend one coat:**

**decorend one coat** is a mechanically mixed general purpose Monocouche render, applied manually with a scraped finish.

#### (iii) **rendapral:**

**rendapral** is a mechanically mixed general purpose Monocouche render, applied manually with a scraped finish.

**weber** Monocouche Renders are 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 walls, 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, and stone masonry.

### 2.1.2 Ancillary Items

#### (a) **Materials required with the renders include:**

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

#### (b) **Special equipment and tools required include:**

Render pump (**monopral cemrend** only\*), spray gun, plasterers 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.

\*Note:

**decorend one coat** may be spray applied with a continuous mixing and pumping machine with separate mixing and pumping chambers.

## 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. The manufacturer operates and maintains a documented quality system to ensure that product conforms to the specified requirements.

List of purchased goods includes:

Ordinary Portland cement to BS 12

Calcium hydroxide (lime)

Various additives – polymers, waterproofers, plasticisers, performance modifiers, pigments

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 MARKING, DELIVERY AND SITE STORAGE

### 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 Irish Agrément Board 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 25 kg sealed, moisture resistant paper bags. Each pallet contains 40 bags and weighs approximately 1000 kg.

### 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

**weber** Monocouche Renders should be installed in accordance with the manufacturers instructions. The renders should be applied to properly designed walls and over substrates conforming to the requirements set out by the manufacturer. The manufacturer supplies the range of products with detailed instructions on the appropriate installation procedures. The manufacturer also provides advice, training and back-up for applicators.

### 2.4.2 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 starting installation. In slow drying situations, a longer interval should be allowed. All surfaces must be in a clean, sound condition, free from contamination. As with traditional render, **weber** Monocouche renders rely on a combination of suction and surface texture to achieve bond. The recommendations set out in BS 5262: 1991, '*Code of practice for external rendering*', should be followed. As with traditional renders, it is essential that all steps are taken to ensure that a satisfactory bond is achieved between the render and the substrate.

#### (i) **Dense concrete block and clay brick surfaces**

All blockwork and brickwork should be carried out in accordance with IS 325, Part 1, '*Structural Design of Unreinforced Masonry*', IS 325, Part 2: 1995, '*Masonry Construction*' and BS 5628, Part 3, 2001, '*Code of practice for the use of masonry, Materials and*

*Components, Design and Workmanship*' (including particularly clause 5 on exclusion of water), and BS 8103, Part 1, 1995, '*Structural design of low-rise buildings, code of practice for stability, site investigations, foundations and ground floor slabs for housing*', and BS 8103, Part 2: 1996, '*Structural design of low-rise buildings – code of practice for masonry walls for housing*'. The mortar should be selected and applied in accordance with the general conditions contained in PD 6472, 1974, '*Guide to specifying the quality of building mortars*'.

#### (ii) Concrete surfaces

Concrete should comply in general with BS 8110, Part 1: 1985, '*The structural use of concrete*' and be specified generally in accordance with the requirements and procedures laid down in BS 5328, Parts 1 to 4: 1990. For concrete surfaces, all dirt, dust, loose matter, efflorescence, formwork oil and organic growth must be removed by brushing and washing as required with suitable solutions 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 **rend-aid** of 2 to 3mm maximum thickness. The **rend-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 **rend-aid** may be applied as described above.

#### 2.4.3 Application Details

**weber** Monocouche Renders are mixed with a drill and whisk or a free fall mixer and are normally applied in two passes with an interval of between 1 and 8 hours between passes. **monopral cemrend**, is normally applied with a spray rendering machine (cement mortar pump type). Although usually hand applied, **decorend one coat** 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 as laid down in section 19 of BS 5262: 1991.

**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°C, or above 35°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.

#### (a) Applying monopral cemrend

**monopral cemrend** is a scrape finished render with a slightly extended open time which makes it ideal for 'ashlar' treatments and a variety of special hand tools are available to create various designs. It is applied in a single coat to a finished thickness 15mm. For thickness greater than 20mm it is applied in two passes. Where roughcast finish is required, **monopral cemrend** will always be applied in two coats. During application, doors and windows should be protected from overspray with polythene sheeting. Finished thickness of applied render depends on substrate type and design finish required. (ie ashlar, spray roughcast, scraped) For a scraped finish, **monopral cemrend** should be in the range 18mm to 28mm to allow for the removal of 2 to 3mm during scraping. This provides a finished protecting render coat of between 15 and 25mm. For 'ashlar' finish the thickness of the applied coat should be such that, allowing for the depth of cut in the joints, there will be a minimum undisturbed thickness of 15mm.

#### (b) Applying decorend one coat

**decorend one coat** is normally applied in two passes depending on background conditions and final finish required. Finish designs which can be achieved with **decorend one coat** include scraped finish and, when applied with a suitable continuous spray machine, a roughcast finish. As with all **weber** Monocouche renders it is important that a consistent minimum thickness is achieved and that the maximum thickness is not exceeded. Thickness for first and second pass depend on substrate type and design finish required.

#### (c) Applying rendapral

**rendapral** is also normally applied in two passes depending on background conditions and final finish required. **rendapral** is completed with a scraped finish. As with all **weber** Monocouche renders it is important that a consistent minimum thickness is achieved and that the maximum thickness is not exceeded. Thickness for first and second pass depend on substrate type and design finish required.

#### 2.4.4 Design Details

##### (a) Parapets

**weber** Monocouche renders must not be applied onto flat or sloping surfaces. An adequate capping must always be provided to prevent water penetrating behind the render.

##### (b) Window and door reveals

AR mesh reinforcement must be included in rendering along the lintel. External arrises are formed using bevelled timber battens or by using rigid PVC or stainless steel beads. Beads must not be used at corners where ashlar features are being formed.

##### (c) 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.

#### (d) 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 fibreglass mesh prior to applying **weber** Monocouche render. The mesh should be bedded in a thin coat of **weber** Monocouche render as a preliminary process to the first coat.

#### (e) Expansion joints

Where expansion or movement joints occur they should be brought through to the surface and not covered by the **weber** Monocouche render.



#### 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 or internal application to properly designed and constructed walls. Wall design should be in accordance with that described in Part 2 (see Section 2.4, in particular) of this certificate.

#### 3.2 STRENGTH AND STABILITY

**weber** Monocouche Renders comply with BS 5262: 1991, 'Code of practice for external rendering'. This standard gives recommendations for building details, design and material specifications. **weber** Monocouche Renders have a compressive strength similar to

traditional Class III renders. Hard body impact tests show that **weber** Monocouche Renders, when used as covered in this certificate, have adequate resistance against impact and abrasion for all normal situations. **weber** Monocouche 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.

#### 3.3 STRUCTURAL FIRE SAFETY

**weber** Monocouche renders are non-combustible and have a Class 0 'Spread of Flame' rating in accordance with Table A6, Technical Guidance Document B, Building Regulations 1997 to 2002.

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 in accordance with this certificate on properly designed buildings, when applied as per the tables in the codes of practice

BS5262 on render thickness / exposure, will have adequate resistance to wind and wind-driven rain in all exposures in Ireland. 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

# 4

## TECHNICAL INVESTIGATIONS

### 4.1 BEHAVIOUR IN RELATION TO FIRE

When tested in accordance with BS 476, Part 6: 1968 and BS 476, Part 7: 1971, **weber** Monocouche render 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, Technical Guidance Document B, Building Regulations 1997 to 2002. **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, **weber** Monocouche renders have a  $\lambda$  value (thermal conductivity) of  $0.48 \text{ Wm}^{-1}\text{K}^{-1}$ .

### 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 permeance of the order of  $0.54\text{g}(\text{MN})^{-1}$ . The renders are not vapour barriers and are unlikely to lead to interstitial condensation.

### 4.4 DURABILITY

**weber** Monocouche renders, used in accordance with this certificate and the manufacturer's instructions,

should have a life of at least 60 years, subject to normal use and maintenance. The history of the colour retention of the 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. 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 maintenance free, 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 of damage should be undertaken before repairs are carried out. Repairs will normally be similar to that for traditional renders.



**5.1 CONDITIONS OF CERTIFICATION**

The National Standards Authority of Ireland (“NSAI”) following consultation with the Irish Agrément Board (“IAB”) has assessed the performance and method of installation of the system and the quality of the materials used in its manufacture and certifies the system 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 so long as:

- (a) the specification of the product is unchanged;
- (b) the Building Regulations, 1997 to 2002 and any other regulation or standard applicable to the product/process/system, its use or installation remain 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 system continues to be manufactured, installed, used and maintained in accordance with the description, specifications and safety recommendations set out in this certificate.

**5.2** The IAB mark and certification number may only be used on or in relation to the system in respect of which a valid certificate exists. If the certificate becomes invalid, the certificate holder must not use the IAB mark and certification number and must remove them from products already marked.

**5.3** In granting this certificate, the NSAI makes no representation as to:

- (a) the presence or absence of patent rights subsisting in the product/process/system; or
- (b) the legal right of the certificate holder to market, install or maintain the product/process/system; 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 or 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, 1989 or of any other current or future statute or 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.

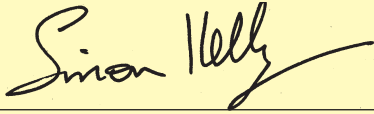
**5.7** Where reference is made in this certificate to any Act of the Oireachtas, regulation made thereunder, statutory instrument, code of practice, national standards, manufacturer’s instructions or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this certification.

## THE IRISH AGRÉMENT BOARD

This Certificate No. 03/0180 is accordingly granted by NSAI to **weber sbd** on behalf of The Irish Agrément Board.

Date of Issue:

Signed: \_\_\_\_\_



Chief Executive, NSAI

Readers may check that the status of this Certificate has not changed by contacting the Irish Agrément Board, NSAI, Glasnevin, Dublin 9, Ireland, or by consulting the IAB website.

Telephone: (01) 807 3800.

Telefax: (01) 807 3842.

[www.n sai.ie](http://www.n sai.ie)



BUILDING PRODUCT CERTIFICATION

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