

CERTIFICATE No. 06/0254

Maxit Building Products Ltd.
The Heath, Runcorn,
Cheshire WA7 4QX, U.K.
Tel: 0044 1928 515656
Fax: 0044 1928 576792
e-mail: sales@maxit-uk.co.uk
Web: www.maxit-uk.co.uk

Maxit Monocapa Renders

Enduit de Surface Oberflächenbeschichtung

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 2006**.

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

PRODUCT DESCRIPTION:

This Certificate relates to Maxit Monocapa **Onelite RG** and **Onelite MQ**, single coat, through coloured, polymer modified, cementitious renders, developed by Maxit S.L. These renders are manufactured by batch blending measured quantities of white cement, mineral aggregates, pigments and additives.

They are supplied as a ready mixed dry materials to which controlled amounts of water is added prior to application. They are applied as single coat renders without the need for a scud coat for most applications, and are available in a range of colours. A range of textured finishes can be produced in a separate process following application.

This Certificate certifies compliance with the requirements of the Irish Building Regulations 1997 to 2006.

USE:

Maxit Monocapa Renders are designed for weatherproofing external vertical substrates of brickwork, blockwork and concrete suited to receive a rendered finish. It can also be used as an internal decorative render. **Onelite RG** is suitable for hand application. **Onelite MQ** is suitable for machine application.

MANUFACTURE & MARKETING:

The products are manufactured by:

Maxit S.L.
Aritz Bidea,
103 Apdo. Correos 79,
48100 Munguia (Vizcaya),
Spain.
Tel: 0034 902 34 43 55
Fax: 0034 94 674 44 66



And Marketed by:

Maxit Building Products Ltd.
The Heath ,
Runcorn,
Cheshire WA7 4QX.
U.K.
Tel: 0044 1928 515656
Fax: 0044 1928 576792
e-mail: sales@maxit-uk.co.uk
website: www.maxit-uk.co.uk

Readers are advised to check that this Certificate has not been withdrawn or superseded by a later issue by contacting the Irish Agrément Board, NSAI, Glasnevin, Dublin 9 or online at www.irishagrementboard.com/certs.php?no=060254

1.1 ASSESSMENT

In the opinion of the Irish Agrément Board (IAB), Maxit Monocapa Renders if used in accordance with this Certificate can meet the requirements of the Building Regulations 1997 to 2006, as indicated in Section 1.2 of this Irish Agrément Certificate.

1.2 BUILDING REGULATIONS 1997 to 2006

REQUIREMENT:

Part D – Materials and Workmanship

D3 – Maxit Monocapa Renders, as certified in this Certificate, are comprised of 'proper materials' fit for their intended use (see Part 4 of this Certificate).

D1 – Maxit Monocapa Renders, as certified in this Certificate, meet the requirements for workmanship.

Part A - Structure

A1 – Loading

Maxit Monocapa Renders, as certified in this Certificate, have adequate strength and stability (see Parts 3 and 4 of this Certificate).

A2 – Ground Movement

Maxit Monocapa Renders, 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

Maxit Monocapa Renders, as certified in this Certificate, are non-combustible and have a Class O surface spread of flame rating. They are 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

Maxit Monocapa Renders do not compromise the fitting of adequate damp-proof courses, appropriate Radon and dangerous substances protection membranes and gas handling systems to meet the requirements. Maxit Monocapa Renders, 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)

Maxit Monocapa Renders 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

Maxit Monocapa Renders 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

Maxit Monocapa Renders are self coloured cementitious renders manufactured by batch blending white cement, graded mineral aggregated, light aggregates, special additives for improving workability and adherence, hydrophobic components, pigments and fibres.

Except for the addition of mixing water, each render is supplied with all of the ingredients fully mixed in plastic lined 25kg bags.

Onelite RG and **Onelite MQ** renders are applied as single coat renders and are available in a range of colours. The minimum thickness (finished thickness after texturing) is 15mm for one coat application. A range of textured finishes can be produced in a separate process following application.

Onelite RG – Is used for hand application. A 15mm thickness of Onelite RG has an approximate weight of 25kg/m² and a water vapour resistance of 0.75 MNs/g

Onelite MQ – Is used for machine application. A 15mm thickness of Onelite MQ has an approximate weight of 23kg/m² and a water vapour resistance of 0.80 MNs/g

2.1.1 Ancillary Items

Materials required may include:

- Rigid PVC or Stainless steel drip, stop, movement and corner beads
- Alkali resistant mesh
- Onekol P – An acrylic copolymer resin in an aqueous dispersion, used as an adhesive bridge on low absorbent substrates.

Special equipment and tools required may include:

- Plasterers knife
- Trowel, steel trowel
- Large and small scrapers
- Ashlar cutter
- Plasterer's straight edge
- Thickness gauge
- Soft bristle brush
- Measuring bucket
- Spraying machine

2.2 MANUFACTURE

Maxit Monocapa Renders are manufactured by mixing the main components, weighed by a computer controlled weighing machine, with minor additives. When mixing, controlled by an automatic timer, has been completed, the product is directed to the bagging machine where the material is packed.

2.2.1 Quality Control

Quality control checks are carried out on the incoming raw materials, during production and on the finished product. The management systems of Maxit S.L. have been assessed and registered as meeting the requirements of ISO 9001:2000 by Lloyd's Register Quality Assurance, (Certificate No. SGI 1199043/A).

2.3 DELIVERY, STORAGE AND MARKING

The product is packed in 3-ply polythene lined paper sacks. Each sack identifies the product name and includes basic mixing and installation instructions. The product colour and date of manufacture is printed on the side of each sack. The bags are then placed on pallets which bear a label identifying the manufacturer's name and the Irish Agrément Board logo with the number of this Certificate. Each pallet holds 48 sacks and weighs 1200 kg.

Maxit Monocapa Renders should be stored off the ground, under cover protected from moisture and frost in dry conditions. Unopened bags may be stored for up to one year and should be used in rotation.

2.4 INSTALLATION

2.4.1 Installation Control

Application of both the Maxit Monocapa **Onelite RG** and **Onelite MQ** Renders must be carried out in accordance with the Certificate holder's instructions and the relevant recommendations of IS EN 13914-1:2005 *Design, preparation and application of external rendering and internal plastering – External rendering* and BS 5262:1991 *Code of practice for 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 building 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 Maxit Monocapa 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

Maxit Monocapa 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, Maxit Monocapa Renders rely on a combination of suction and surface texture to achieve bond. The recommendations set out in IS EN 13914-1:2005 and BS 5262:1991 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 325-1:1986 *Structural use of unreinforced masonry* and IS 325-2:1995 *Masonry construction* 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. The manufacturer's guidance should be sought in cases where Maxit Monocapa Renders are applied at wall openings incorporating concrete lintels.

For each project involving the use of Maxit Monocapa Renders on concrete or fair-faced concrete, a method statement must be prepared. This method statement should address such issues as choice of shutter mould release agent, removal of laitance or dust on the concrete surface and the application of a key coat with a bonding agent. Rendering on this type of background is limited to a maximum of two storeys above ground level.

Onokol P is an acrylic copolymer resin in an aqueous dispersion that forms a paste when mixed with ordinary Portland Cement to provide an adhesive bridge on low absorption substrates. The Certificate holders advise should be sought on its application.

2.4.4 Application

It is essential that application of the Maxit Monocapa **Onelite RG** and **Onelite MQ** Renders is carried out by experienced rendering contractors, strictly in accordance with the Certificate holders instructions and this Certificate.

Onelite RG

The Onelite RG powder is mixed with clean water at a rate of approximately 4.5 to 5.0 litres to each 25 kg bag. The mix is prepared in a concrete mixer, a traditional mixer, a spray machine or manually. The mixing should be continued from three to five minutes until a homogeneous mass is obtained and the mixture is then left to stand for five minutes before use. Once ready, the mixture must be applied within two hours.

Application may be carried out either mechanically or manually, using a trowel or float. Advice should be sought from the Certificate holder regarding suitable equipment for mechanical application

Onelite MQ

The Onelite MQ powder is mixed with clean water at a rate of approximately 5.0 to 6.0 litres to each 25 kg bag, in a dedicated mixer/applicator, regulating the amount of water by means of the integral flow water. The product, mixed to maintain a suitable consistency of paste, should be applied within one hour.

The optimum water / single-coat mortar ratio must be calculated for the machine chosen (hose section and length) and for the site conditions (e.g., climatic conditions), starting from an initial ratio of 0.15 and progressively increasing it. The Certificate can advise on suitable ratios for a particular application.

General Application Details

For both the Maxit Monocapa **Onelite RG** and **Onelite MQ** Renders, in common with traditional renders, slumping may occur if the mix is too wet, and the risk of settlement cracks developing will be increased.

The thickness of the finished coating, whether scraped or with a raised texture, should not be less than 15mm at its lowest point. Scraped finishes will require the application of 3 mm to 5 mm more than the specified thickness to allow for material lost in the scraping process. Application may be in one or two passes. Maxit Monocapa Renders can normally be applied in a single coat, however for poor quality brickwork, or uneven surfaces, a levelling coat may be required to ensure a final minimum render thickness of 15mm is achieved. In case of doubt, the advice of the Certificate holder should be sought.

The products should not be applied in rain or mist, at temperatures above 30°C or below 5°C or, if exposure to frost is likely to occur during curing. In common with traditional sand/cement renders, they must not be applied to frost-bound walls.

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

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, 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.

When the substrate consists of different materials, or a material of variable suction the recommendations of BS 5262:1991, and the Certificate holder's instructions must be followed to ensure even quality and appearance of the product.

On completion of the rendering, the surface must be checked to ensure an even coverage of render.

Finishes

A scratched or scraped textured finish can be achieved using the correct tool (spiked trowel or scratcher) to obtain a stone-masonry effect. Any loose material should be brushed off using a large, soft brush. A splatterdash or roughcast finish can be achieved, when using a mechanical pump by slowing down the projection on the second pass. The Certificate holder can produce further details on producing these finishes.

2.4.5 Design Details

(i) Parapets

Maxit Monocapa 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 4.4 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 Maxit Monocapa Render is dressed down to the stop bead. The bellcast is then rendered to complete the façade.

(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 Maxit Monocapa Render. The mesh should be bedded in a thin coat of Maxit Monocapa 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 Maxit Monocapa 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 4.4 of this Certificate).



3.1 GENERAL

Maxit Monocapa **Onelite RG** and **Onelite MQ** 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. Maxit Monocapa Renders can also be used as an internal decorative render.

3.2 STRENGTH AND STABILITY

Maxit Monocapa **Onelite RG** and **Onelite MQ** Renders comply with the relevant sections of IS EN 13914-1:2005 and BS 5262:1991. Maxit Monocapa Renders are considered suitable for use in all categories in Table 2 of BS 8200:1985 *Code of practice for design of non-loadbearing external vertical elements of a building*. The renders should not be applied in areas where there is evidence of corrosion of steel reinforcement or other metal products in the background. Maxit Monocapa Renders are not suitable for application over gypsum plaster or previously decorated surfaces.

3.3 STRUCTURAL FIRE SAFETY

Maxit Monocapa **Onelite RG** and **Onelite MQ** Renders are non-combustible and have a Class O spread of flame rating in accordance with Table A6 of TGD to Part B of the Building Regulations 1997 to 2006.

Maxit Monocapa 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

Maxit Monocapa **Onelite RG** and **Onelite MQ** Renders, when used on masonry construction meeting the requirements of I.S 325:Part 2, and applied in accordance with this Certificate, the manufacturer's instructions, and the sections of I.S. EN 13914-1:2005 regarding thickness and 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.



4.1 BEHAVIOUR IN FIRE

In accordance with Table A6 of TGD B to the Building Regulations 1997 to 2006, Maxit Monocapa **Onelite RG** and **Onelite MQ** Renders have a Class O spread of flame classification and are non-combustible.

Maxit Monocapa Renders are non-toxic in normal use and fire conditions.

4.2 THERMAL CONDUCTIVITY

The thermal conductivity (λ) values of the Maxit Monocapa Renders are listed in Table 1

Table 1: Thermal Conductivity (λ) to I.S. EN 1745

Product	Thermal Conductivity Value (W/mK)
Onelite RG	0.75
Onelite MQ	0.47

4.3 WATER VAPOUR RESISTANCE

The water vapour resistance values of 15 mm thickness samples of Maxit Monocapa Renders are listed in Table 2.

Table 2: Water Vapour Resistance to BS 3177

Product	Water Vapour Resistance (MNs/g)
Onelite RG	0.75
Onelite MQ	0.80

4.4 DURABILITY

Maxit Monocapa Renders, used in accordance with this Certificate, the manufacturer's instructions, and using stainless steel beading having a corrosion resistance at least equal to Grade 30 per BS 1149-2, should have a life of at least 60 years subject to normal use and maintenance.

The history of the colour retention of Maxit Monocapa Renders is good. The products are less susceptible to crazing and cracking than traditional renders. Maxit Monocapa Renders may become discoloured with time depending on the local environment. Cleaning with water and a stiff brush can normally restore appearance. The product may suffer from algae or lichen growth in a similar manner to traditional finishes – proprietary treatments are available to treat these.

4.5 MAINTENANCE AND REPAIR

While Maxit Monocapa 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 BS 5262:1991.

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

- Bulk Density
- Flexural and compressive strength of mortars
- Effects of freeze/thaw
- Capillary water absorption
- Water vapour permeability
- Effect of accelerated ageing on bond strength
- Impact resistance

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.

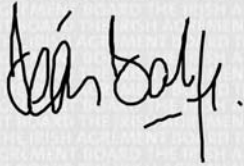
- 5.1** National Standards Authority of Ireland ("NSAI") following consultation with the Irish Agrément Board ("IAB") has assessed the performance and method of installation of the product/process and the quality of the materials used in its manufacture and certifies the product/process to be fit for 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 issue so long as:
- (a) the specification of the product is unchanged.
 - (b) the Building Regulations 1997 to 2006 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 IAB are paid.
- 5.2** The IAB 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 IAB 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 1989, 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.

The Irish Agrément Board

This Certificate No. **06/0254** is accordingly granted by the NSAI to **Maxit Building Products Ltd.** on behalf of The Irish Agrément Board.

Date of Issue: **June 2006**

Signed



Seán Balfe
Director of the Irish Agrément Board

Readers may check that the status of this Certificate has not changed by contacting the Irish Agrément Board, NSAI, Glasnevin, Dublin 9, Ireland. Telephone: (01) 807 3800. Fax: (01) 807 3842. www.n sai.ie