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**Agrément
Certificate
No 03/3997**

Designated by Government
to issue
European Technical
Approvals

EUROMIX ONE COAT RENDER

Enduit de surface
Oberflächenbeschichtung

Product



• THIS CERTIFICATE RELATES TO EUROMIX ONE COAT RENDER.


• The product is for use as a one-coat decorative rendering, applied by hand or mobile spray machine to suitably prepared exterior substrates of brickwork, blockwork and concrete suited to receiving a rendered finish.

• When applied as a 15 mm finished thickness, it is suitable for external use on new or existing buildings in areas where the local wind-driven rain wall spell index is less than 75 litres m⁻² per spell; where two-coat traditional renders would normally be specified.

• It is essential that application of the product is carried out by experienced rendering contractors, strictly in accordance with the Certificate holder's instructions.

Regulations

1 The Building Regulations 2000 (as amended) (England and Wales)

 The Secretary of State has agreed with the British Board of Agrément aspects of performance to be used by the BBA in assessing the compliance of wall finishes with the Building Regulations. In the opinion of the BBA, EuroMix One Coat Render, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements.

Requirement: **B2**
Requirement: **B4(1)**
Comment:

Internal fire spread (linings)
External fire spread (walls)

The product meets these Requirements. See sections 11.1 and 11.2 of this Certificate.

Requirement: **C4**
Comment:

Resistance to weather and ground moisture

Tests and site experience indicate that a wall rendered with the product will meet this Requirement provided installation is in accordance with sections 7.2, 7.3, 9.1, 9.2 and 10 of this Certificate. See also sections 7.1 and 9.3 of this Certificate.

Requirement: **Regulation 7**
Comment:

Materials and workmanship

The product is an acceptable material. See section 14.1 of this Certificate.

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2 The Building Standards (Scotland) Regulations 1990 (as amended)



In the opinion of the BBA, EuroMix One Coat Render, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Technical Standards as listed below.

Regulation:	10	Fitness of materials and workmanship
Standard:	B2.1	Selection and use of materials, fittings, and components, and workmanship
Comment:		The product can contribute to a construction meeting this Standard. See the <i>Installation</i> part of this Certificate.
Standard:	B2.2	Selection and use of materials, fittings, and components, and workmanship
Comment:		The product is an acceptable material. See section 14.1 of this Certificate.
Regulation:	12	Structural fire precautions
Standard:	D2.3	Structural protection — Non-combustible materials
Standard:	D7.1	Fire spread on internal linings — Principles
Standard:	D10.1	Fire spread on an external wall
Comment:		The product has a low risk surface, as defined in the Technical Standards (D1.3), and is unrestricted by these Standards. See sections 11.1 and 11.2 of this Certificate.
Regulation:	17	Resistance to moisture
Standard:	G3.1	Resistance to precipitation — Resistance to precipitation
Comment:		A wall rendered with the products can satisfy the requirements of this Standard provided the installation is in accordance with sections 7.2, 7.3, 9.1 and 9.2 of this Certificate. See also sections 7.1 and 9.3 of this Certificate.
Regulation:	18	Resistance to condensation
Standard:	G4.1	Condensation — Interstitial condensation
Comment:		A wall rendered with the product can satisfy the requirements of this Standard. See section 10 of this Certificate.

3 The Building Regulations (Northern Ireland) 2000



In the opinion of the BBA, EuroMix One Coat Render, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations as listed below.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is an acceptable material. See section 14.1 of this Certificate.
Regulation:	C4	Resistance to ground moisture and weather
Comment:		Tests and site experience indicate that a wall rendered with the product can satisfy this Regulation provided the installation is in accordance with sections 7.2, 7.3, 9.1, 9.2 and 10 of this Certificate. See also sections 7.1 and 9.3 of this Certificate.
Regulation:	E3	Internal fire spread — Linings
Regulation:	E5	External fire spread
Comment:		The product is unrestricted by these Regulations. See sections 11.1 and 11.2 of this Certificate.

4 Construction (Design and Management) Regulations 1994 (as amended) Construction (Design and Management) Regulations (Northern Ireland) 1995 (as amended)

Information in this Certificate may assist the client, planning supervisor, designer and contractors to address their obligations under these Regulations.

See sections: *6 Delivery and site handling* (6.1 and 6.4) and *17 Mixing* (17.1).

Technical Specification

5 Description

5.1 EuroMix One Coat Render is a self-coloured cementitious render, and is manufactured by batch blending measured quantities of white cement, selected sands, lime, pigments and additives.

5.2 Quality control is exercised on the raw materials and on the final product.

5.3 The product must be scraped after application to give a textured surface finish and can be subsequently polished to achieve a rough stone finish. Ashlar cuts can also be formed as a decorative feature. EuroMix One Coat Render is supplied in a standard range of colours, other colours being available to special order.

5.4 The render thickness of 15 mm has a weight of between 22 kgm⁻² and 25 kgm⁻².

6 Delivery and site handling

6.1 EuroMix One Coat Render can be delivered on pallets in 25 kg sealed plastic bags, in 1 tonne bulk sacks or in bulk silos.

6.2 The bagged product must be stored under cover and protected from moisture and frost. The bags should be used in rotation.

6.3 Each bag bears the manufacturer's mark, a batch number and the BBA identification mark incorporating the number of this Certificate.

6.4 The product is cement-based and contains additives. It must be handled using routine precautions for cementitious materials.

Design Data

7 General



7.1 EuroMix One Coat Render will improve the weather resistance of a wall and provide a new decorative finish.

7.2 The product is satisfactory for external use on backgrounds of brickwork, blockwork, and concrete prepared and suited to receiving a rendered finish. It is essential that such walls are designed and constructed to prevent moisture penetration and the formation of condensation.

7.3 Walls to be rendered with the product should be designed and constructed in accordance with the relevant recommendations of BS 5628-3 : 2001 (in particular clause 5.5 on exclusion of water) and BS 5262 : 1991 (in particular, section 3 *Design*, clauses 18, 27 and 29 on conditions of exposure, protection afforded by architectural features and resistance to cracking). The designer should select a construction appropriate to its location, paying due attention to

design, detailing, workmanship (including relevant sections of BS 8000-10 : 1995) and materials to be used.

7.4 The assessment covers the area of the wall above 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
- as rendering to Sol bricks.

7.5 The product is not suitable for application to gypsum plaster or previously decorated surfaces.

8 Strength and stability

8.1 EuroMix One Coat Render may be taken as being equivalent to Type 3 renders to BS 5262 : 1991, and has adequate resistance to impact and abrasion for use in all normal situations. Where the product may be exposed to severe impact (eg some industrial sites), or is to be applied over existing cracks in the background, precautions may be required to reduce the risk of damage.

8.2 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.

9 Weather resistance



9.1 Walls to receive an application of EuroMix One Coat Render must be designed and constructed in relation to local exposure conditions to minimise the incidence of rain penetration.

9.2 When applied as described in section 18.2 the product is suitable for use in areas where the local wind-driven rain wall spell index calculated according to BS 8104 : 1992 is less than 75 litres m⁻² per spell. This category of exposure is within the range classified as severe according to Table 11 of BS 5628-3 : 2001 and represents the 7 litres m⁻² per spell threshold between moderate and severe defined in BS 5262 : 1991.

9.3 The product tends to shed water and considerably reduces the amount of water that can be absorbed by the substrate during rain.

10 Water vapour resistance



The water vapour resistance of a 10 mm thickness of EuroMix One Coat Render was measured as 0.425 MNsg^{-1} .

11 Performance in relation to fire



11.1 When tested in accordance with BS 476-6 : 1989 and BS 476-7 : 1997 EuroMix One Coat Render achieved a fire propagation index (I) of 0.1, a sub-index (i_1) of 0.1 and a Class 1 surface.

11.2 The product has a Class 0 or low risk surface as defined in the national Building Regulations:

England and Wales

Approved Document B, Appendix A, paragraph 12

Scotland

Technical Standards, Part D, (D1.3) Table 3

Northern Ireland

Technical Booklet E, section 2.4.

12 Thermal conductivity

EuroMix One Coat Render may be taken to have a λ value (thermal conductivity) of $0.48 \text{ Wm}^{-1}\text{K}^{-1}$.

13 Maintenance and repair

13.1 Damage to the product should be repaired immediately using EuroMix One Coat Render materials. Repairs should be carried out in accordance with the relevant recommendations of BS 5262 : 1991.

13.2 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 should be in good condition to lessen the extent of penetration of water into the render.

14 Durability



14.1 EuroMix One Coat Render applied to a suitable, sound substrate and under moderate conditions of exposure and use, will perform satisfactorily for a period in excess of 25 years.

14.2 The product may become discoloured with time, the rate depending on the local environment. Appearance can normally be restored by cleaning with water and a stiff brush. In industrial atmospheres, light-coloured renders should be avoided.

14.3 The product has adequate colourfastness for a period in excess of 20 years but will be discoloured by water runs and care should be

taken to ensure that the measures given in section 13.2 are taken.

14.4 The product may suffer from algal growth in a similar manner to traditional external rendered finishes.

14.5 In common with traditional renders the product may be subject to lime bloom. The occurrence 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.

Installation

15 Site survey and preliminary work

15.1 Advice concerning site survey and preliminary work is available to the designer or rendering contractor from the Certificate holder on request.

15.2 A pre-application survey of the property must be carried out to determine its suitability to receive EuroMix One Coat Render 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, doors and at eaves
- damp-proof course level
- exact position of movement joints
- areas where flexible sealants must be used
- any alterations to external plumbing.

15.3 Tests should be conducted in accordance with BS 3921 : 1985 to determine the salt content of the substrate. The results of the tests should be reported to the Certificate holder to enable advice on the suitability of the substrate to receive the product.

15.4 The mortar in new brickwork must conform to the brick manufacturer's recommendations.

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

15.6 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.

15.7 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.

15.8 In common with traditional renders, new walls to be rendered should be left as long as possible to dry out and to minimise substrate movement.

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

16 Preparation of substrate

16.1 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 to minimise variations in the thickness of the product.

16.2 The relevant recommendations of BS 5262 : 1991 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, moulds and similar growth or anything else likely to prevent a satisfactory bond.

16.3 It is essential that the substrate to be rendered is clean. This applies to new as well as to old surfaces.

16.4 Additives incorporated into EuroMix One Coat Render make it less susceptible to variations in background suction. However, conventional good rendering practice as set out in this section should be followed. The substrate should be checked for suction by spraying the surface with clean water. If water is not absorbed it will be impossible to obtain a good bond and the application should not commence until the surface has dried out. If, however, the water is absorbed readily by the substrate the background may be too absorbent and some wetting will be necessary to prevent water, required for the hydration and workability of the product, being readily extracted. In most circumstances the suction can be controlled by spraying, but not soaking, the substrate with several applications of water. On very absorbent or smooth surfaces, or at wall temperatures above 40°C, a sand and cement SBR adhesive slurry should be used and allowed to dry, typically for two to three days, before coating with the EuroMix One Coat Render.

16.5 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 render.

16.6 On backgrounds of negligible suction (eg dense smooth concrete, or stone) the advice of the

Certificate holder should be sought concerning special procedures necessary to provide an adequate key.

16.7 Wherever possible, independent scaffolding should be used to avoid the subsequent making-good of putlog holes and other breaks in the work.

17 Mixing

17.1 The product should be mixed in a suitable paddle mixer or continuous spray-rendering machine. Clean water should be added at a steady rate of approximately 5 to 6 litres per 25 kg bag and mixing continued until a uniform material with a consistent workability is achieved.

17.2 The exact amount of water required depends on the mixing output, but is typically from 5 litres to 6 litres per 25 kg bag.

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

18 Application

General

18.1 Application is carried out strictly in accordance with this Certificate, the Certificate holder's instructions and specifications, and the relevant recommendations of BS 5262 : 1991. When considering the use of the product for the first time, the Certificate holder should be consulted.

18.2 The render is applied in two passes, the first to give a 3 mm to 5 mm thick coating on the prepared background. After approximately 30 minutes, a second pass is made to produce a total thickness of 18 mm. The surface is then levelled using a long straight edge or trowel and allowed to set.

18.3 The product should not be applied in rain, mist or temperatures below 5°C, or if exposure to frost is likely to occur during drying. In common with traditional sand/cement renders, the product must not be applied to frostbound walls.

18.4 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.

18.5 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.

Curing

18.6 Care must be taken to protect the product from drying too rapidly due to exposure to direct sunlight or drying wind.

18.7 The product must be protected from rain, mist or cold (less than 5°C on a falling thermometer) during the early curing period, when drying could be excessively prolonged.

18.8 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.

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

Finishing the work

18.10 Finishes such as scraped, rough stone and ashlar stone may be produced. Advice on how to achieve these should be sought from the Certificate holder.

Technical Investigations

The following is a summary of the technical investigations carried out on EuroMix One Coat Render.

19 Tests

19.1 Tests were carried out to determine:

impact resistance
water vapour permeability
initial surface absorption
sieve grading
ash content
density
effect of freeze/thaw
effect of accelerated ageing on bond strength.

19.2 An examination was made of test data, from independent laboratories relating to:

fire propagation
surface spread of flame.

20 Investigations

A visit was made to an early existing installation of EuroMix One Coat Render, that had been subjected to natural exposure to assess early age performance of the product.

Additional Information

The management systems of CPI Limited have been assessed and registered as meeting the requirements of IS EN ISO 9002 : 1994 by NSAI (registration No 19.0871).

Bibliography

- BS 476-6 : 1989 *Fire tests on building materials and structures — Method of test for fire propagation for products*
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*
BS 3921 : 1985 *Specification for clay bricks*
BS 5262 : 1991 *Code of practice for external renderings*
BS 5628-3 : 2001 *Code of practice for use of masonry — Materials and components, design and workmanship*
BS 8000-10 : 1995 *Workmanship on building sites — Code of practice for plastering and rendering*
BS 8104 : 1992 *Code of practice for assessing exposure of walls to wind-driven rain*
IS EN ISO 9002 : 1994 *Quality systems — Model for quality assurance in production, installation and servicing*

21 Conditions

21.1 This Certificate:

- (a) relates only to the product that is described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (d) is copyright of the BBA.

21.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, shall be construed as references to such publication in the form in which it was current at the date of this Certificate.

21.3 This Certificate will remain valid for an unlimited period provided that the product and the manufacture and/or fabricating process(es) thereof:

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;

(b) continue to be checked by the BBA or its agents; and

(c) are reviewed by the BBA as and when it considers appropriate.

21.4 In granting this Certificate, the BBA makes no representation as to:

- (a) the presence or absence of any patent or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the nature of individual installations of the product, including methods and workmanship.

21.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the installation and use of this product.



In the opinion of the British Board of Agrément, EuroMix One Coat Render is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 03/3997 is accordingly awarded to CPI Limited.

On behalf of the British Board of Agrément

Date of issue: 11th June 2003

Chief Executive

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British Board of Agrément

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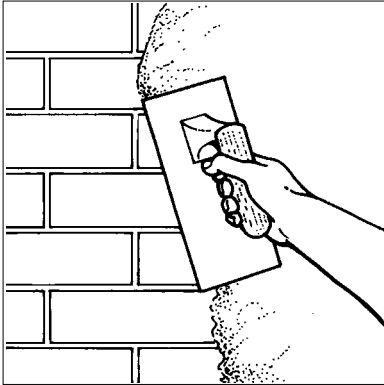
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For technical or additional information,
contact the Certificate holder (see
front page).
For information about the Agrément
Certificate, including validity and
scope, tel: Hotline 01923 665400,
or check the BBA website.



**EUROMIX ONE COAT RENDER
(BBA CERTIFICATE No 03/3997)
IRISH BUILDING REGULATIONS STATEMENT**



- *THIS STATEMENT RELATES TO EUROMIX ONE COAT RENDER AND SETS OUT THE OPINION OF THE BBA ON THE POSITION OF THE PRODUCT UNDER THE BUILDING REGULATIONS IN THE REPUBLIC OF IRELAND.*
- *It must be read in conjunction with the Front Sheets and relevant Detail Sheets of BBA Certificate No 03/3997.*
- *It will remain valid provided BBA Certificate No 03/3997 is valid.*

The Building Regulations 1997/2000 Ireland

In the opinion of the BBA, EuroMix One Coat Render, if used in accordance with the provisions of Certificate No 03/3997, will satisfy or contribute to satisfying the relevant requirements.

Requirement:	B2	Internal fire spread (linings)
Comment:		The product meets this Requirement. See sections 11.1 and 11.2 of BBA Certificate No 03/3997.
Requirement:	B4	External fire spread
Comment:		The product meets this Requirement. See sections 11.1 and 11.2 of BBA Certificate No 03/3997.
Requirement:	C4	Resistance to weather and ground moisture
Comment:		Tests and site experience indicate that a wall rendered with the product will meet this Requirement provided installation is in accordance with sections 7.2, 7.3 and 9.1 of BBA Certificate No 03/3997. See also sections 7.1, 9.2, 9.3, and 10 of BBA Certificate No 03/3997.
Requirement:	D1	Materials and workmanship
Comment:		The product is a proper material. See section 14.1 of BBA Certificate No 03/3997.

On behalf of the British Board of Agrément

Date of issue: 14th July 2003

Chief Executive