

## CPI Mortars Limited

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Agrément Certificate  
**13/5012**  
Product Sheet 1

## EUROMIX DRY MORTAR SYSTEMS

### EUROMIX ONE COAT RENDER

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to EuroMix One Coat Render, a one-coat decorative rendering for use on suitably prepared exterior substrates of brickwork, blockwork and concrete.

(1) Hereinafter referred to as 'Certificate'.

#### CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



#### KEY FACTORS ASSESSED

**Performance in relation to fire** — the product has a Class 0 or 'low risk surface' classification and is unrestricted by the national Building Regulations (see section 6).

**Weather resistance** — the product will tend to shed water and will considerably reduce the amount penetrating through to the substrate (see section 7).

**Strength and stability** — the product has adequate resistance to impact and abrasion (see section 9).

**Durability** — the product, 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 (see section 13).

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

A handwritten signature in black ink, appearing to read 'Simon Wroe'.

Date of First issue: 29 July 2013

Simon Wroe  
Head of Approvals — Materials

A handwritten signature in black ink, appearing to read 'Claire Curtis-Thomas'.

Claire Curtis-Thomas  
Chief Executive

*The BBA is a UKAS accredited certification body — Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at [www.bbacerts.co.uk](http://www.bbacerts.co.uk)*

*Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.*

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# Regulations

In the opinion of the BBA, EuroMix One Coat Render, if installed, used and maintained in accordance with this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



## The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	B4(1)	External fire spread
Comment:		The product is unrestricted by this Requirement. See section 6 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		Tests and site experience indicate that walls rendered with the product will meet this Requirement. See section 7.2 of this Certificate.
Regulation:	7	Materials and workmanship
Comment:		The product is acceptable. See section 13.1 and the <i>Installation</i> part of this Certificate.



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

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		Use of the product satisfies the requirements of this Regulation. See sections 11, 12, 13.1 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.6	Spread to neighbouring buildings
Standard:	2.7	Spread on external walls
Comment:		The product has a 'low risk surface' classification as defined in these Standards, and is unrestricted by them. See section 6 of this Certificate.
Standard:	3.10	Precipitation
Comment:		A wall rendered with the product can satisfy the requirements of this Standard. See section 7.2 of this Certificate.
Standard:	7.1	Statement of sustainability
Comment:		The product can contribute to meeting the relevant Requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	12	Building standards applicable to conversions
Comment:		Comments made in relation to the product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> . (1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic).



## The Building Regulations (Northern Ireland) 2012

Regulation:	23(a)(b)(i)	Fitness of materials and workmanship
Comment:		The product is acceptable. See section 13.1 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		Walls rendered with the product can satisfy this Regulation. See section 7.2 of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		The product is unrestricted by this Regulation. See section 6 of this Certificate.

## Construction (Design and Management) Regulations 2007

## Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See section: 3 *Delivery and site handling* (3.1 and 3.4) of this Certificate.

# Additional Information

## NHBC Standards 2013

NHBC accepts the use of EuroMix One Coat Render, provided it is installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards, Part 6 Superstructure (excluding roofs)*, Chapter 6.1 *External masonry walls*.

# Technical Specification

## 1 Description

1.1 EuroMix One Coat Render is a self-coloured cementitious render suitable for external use on new or existing buildings where two-coat traditional renders would normally be specified.

1.2 The product is applied at a render thickness of 15 mm and has a weight of between 22 kg·m<sup>-2</sup> and 25 kg·m<sup>-2</sup>.

1.3 The product must be scraped after application to give a textured surface and can be subsequently polished to achieve a rough stone finish. Ashlar cuts can also be formed as a decorative feature. The product is supplied in a range of colours.

## 2 Manufacture

2.1 The product is manufactured by batch blending measured quantities of white cement with selected sands, lime, pigments and additives.

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

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

2.3 The management systems of CPI Limited have been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by BSI (Certificate FM60139).

## 3 Delivery and site handling

3.1 The product is delivered on pallets in 25 kg sealed plastic bags, in 1 tonne bulk sacks or in bulk silos.

3.2 The bagged product must be stored under cover and protected from moisture and frost.

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

3.4 The product is cement-based and contains additives and is classified as 'Irritant' under *The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP4)/Classification, Labelling and Packaging of Substances and Mixtures (CLP Regulation) 2009*. It must be handled using the routine precautions for Portland cement.

# Assessment and Technical Investigations

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

## Design Considerations

## 4 Use

4.1 EuroMix One Coat Render is satisfactory for external use as a one-coat render on backgrounds of brickwork, blockwork and concrete in areas with a local wind-driven wall spell index as specified in section 7.2 of this Certificate and where two-coat traditional renders would normally be specified.

4.2 New constructions to be rendered with the product should be designed and constructed in accordance with the relevant recommendations of BS EN 1996-2 : 2006 and the associated UK National Annex, and BS EN 13914-1 : 2005. The designer should select a construction appropriate to its location, paying due attention to design, detailing, workmanship and materials to be used.

4.3 It is essential that such walls are designed and constructed to prevent moisture penetration and the formation of condensation. Substrates must be properly prepared and suitable for receiving a rendered finish.

4.4 The scope of the Certificate covers the product's use on areas of the wall above the damp-proof course (dpc) level. The product has not been assessed for use:

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


- as rendering to chimney stacks
- as rendering to Sol bricks.

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

## 5 Practicability of installation

Installation is designed to be carried out by a competent general builder, or a contractor, experienced with this type of product.

## 6 Performance in relation to fire

 6.1 When tested in accordance with BS 476-6 : 1989 and BS 476-7 : 1997, the product achieved a fire propagation index (I) of 0.1 and a Class 1 surface.

6.2 The product is unrestricted as defined in the National Building Regulations:


*England and Wales* — Approved Document B, Section 8

*Scotland* — Technical Standards, Section 2 of Regulation 9

*Northern Ireland* — Technical Booklet E, section 3.4.

## 7 Weather resistance

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

 7.2 The product is suitable for use in areas where the local wind-driven rain spell index, calculated in accordance with BS 8104 : 1992, is less than 75 l·m<sup>-2</sup> per spell.

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

## 8 Water vapour resistance

The water vapour resistance of a 10 mm thickness of the product was measured as 0.42 MNs·g<sup>-1</sup>.

## 9 Strength and stability


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

9.2 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.


## 10 Thermal conductivity

The product may be taken to have a  $\lambda$  value (thermal conductivity) of 0.48 W·m<sup>-1</sup>·K<sup>-1</sup>.


## 11 Maintenance

 Regular maintenance checks should be carried out to ensure that architectural details for shedding water clear of the building are present and functioning. External plumbing, fittings, gutters and downpipes must be in good condition to minimise water penetration into the render.

## 12 Repair

 Damage to the product must be repaired immediately using EuroMix One Coat Render materials. Repairs must be carried out in accordance with the relevant recommendations of BS EN 13914-1 : 2005.

## 13 Durability

 13.1 The product, 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.

13.2 The product may become discoloured over 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.

13.3 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 11 are taken.

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

13.5 In common with traditional renders the product may be susceptible to lime bloom. The incidence of this may be reduced by proper protection and by avoiding application in winter or adverse weather conditions. The effect is less noticeable on white or paler colours.

## 14 General

14.1 Application of Euromix One Coat Render must be carried out strictly in accordance with this Certificate, the Certificate holder's instructions and specifications, and the relevant recommendations of BS EN 13914-1 : 2005. When considering use of the product for the first time, the Certificate holder should be consulted.

14.2 The product should not be applied in rain, mist, at 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 frost-bound walls.

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

14.4 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, will help mask cold joints. Where long, uninterrupted runs are planned, bags of the product should be checked for batch numbers; bags with different batch numbers should be checked for colour consistency.

## 15 Site survey and preliminary work

15.1 Advice concerning site survey and preliminary work for application of the product is available to the designer or rendering contractor on request.

15.2 A pre-application survey of the property must be carried out to determine its suitability to receive the product and whether repairs to the building structure are necessary before application. A specification must also be prepared by the designer for each elevation indicating:

- preliminary treatment of the background
- the position of beads
- detailing around windows, 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 EN 772-5 : 2001 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 to be given.

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 for as long as possible to dry out and to minimise subsequent 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 EN 13914-1 : 2005 must be followed if a satisfactory bond is to be achieved. In particular, the surface to be rendered must provide a good mechanical key and adequate suction and be free from paint, oil, soot, efflorescence, dust, lichens, mould and similar growth or anything else that could prevent a satisfactory bond.

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

16.4 Additives incorporated into the product 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 readily absorbed by

the substrate the background may be too absorbent and some wetting will be necessary to prevent the water required for the hydration and workability of the product being extracted too quickly. 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 must be used and allowed to dry, typically for two to three days, before coating with the product.

16.5 When the substrate consists of different materials or a material of variable suction the recommendations of BS EN 13914-1 : 2005 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 necessity to subsequently make good putlog holes and other breaks in the work.

## 17 Mixing

17.1 The product is mixed in a suitable paddle mixer or continuous spray-rendering machine. Clean water should be added at a steady rate 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

18.1 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.

18.2 The product must be scraped after application to achieve a final thickness of 15 mm and to provide a textured surface, and can subsequently be polished to achieve a rough stone finish.

## 19 Curing

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

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

19.3 Polythene sheeting is recommended for curing and should be arranged to hang clear of the face of the wall so as not to 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.

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

## 20 Finishing

Advice on how to achieve finishes such as scraped, rough stone and Ashlar should be sought from the Certificate holder.

# Technical Investigations

## 21 Tests

21.1 Tests were carried out on Euomix One Coat Render and the results assessed 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
- adhesion after weathering cycles
- water permeability after weathering cycles.

21.2 An evaluation was made of test data relating to:

- fire propagation
- surface spread of flame.

## 22 Investigations

22.1 A visit was made to an early installation of the product which had undergone natural exposure, to assess its early age performance.

22.2 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and compositions of materials used.

## 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 8104 : 1992 *Code of practice for assessing exposure of walls to wind-driven rain*
- BS EN 772-5 : 2001 *Methods of test for masonry units — Determination of the active soluble salts content of clay masonry units*
- BS EN 1996-2 : 2006 *Eurocode 6 : Design of masonry structures — Design considerations, selection of materials and execution of masonry*
- BS EN 13914-1 : 2005 *Design, preparation and application of external rendering and internal plastering — External rendering*
- BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

## 23 Conditions

23.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page — no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

23.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

23.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

23.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

23.5 In issuing this Certificate, the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

23.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.