

**CERTIFICATE NO. 06/0257**

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**EuroMix One Coat Coloured Render**  
**EuroMix General Purpose Multi-Coat Render**  
**EuroMix General Purpose One Coat Render**  
**Enduit de Surface**  
**Oberflächenbeschichtung**

**NSAI Agrément** is designated by Government to issue European Technical Approvals.

NSAI Agrément Certificates establish proof that the certified products are '**proper materials**' suitable for their intended use under Irish site conditions, and in accordance with the **Building Regulations 1997 to 2007**.

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

**PRODUCT DESCRIPTION:**

This Certificate relates to EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render, developed by CPI Ltd., supplied as ready mixed dry materials to which controlled amounts of water are added before application to suitably prepared exterior or interior substrates of brickwork, block work and concrete suited to receiving a rendered finish. All products are cementitious renders with design mix formulations and containing special additives principally for workability and waterproofing.

This Certificate certifies compliance with the requirements of the Irish Building Regulations 1997 to 2007.

**USE:**

**EuroMix One Coat Coloured Render** is designed for hand or spray application as a through coloured single coat render. A range of textured finishes can be produced in a separate process following application. EuroMix One Coat Coloured Render is supplied in a standard range of colours, other colours being available to special order.

**EuroMix General Purpose Multi-Coat Render** is

designed for hand or spray applications in traditional multi-coat rendering applications. It can be used externally for application as base and finish coat or internally as a base coat to receive a gypsum skim finish. It is available in any strength category or traditional mix type. EuroMix General Purpose Render is supplied in natural colour grey.

**EuroMix General Purpose One Coat Render** is

designed for hand or spray application in a single coat rendering application where traditional multi-coat rendering has been specified. It may be finished with any traditional finish e.g. Float, sponge, nap etc. EuroMix General Purpose One Coat Render is supplied in natural colour grey.

**MANUFACTURE & MARKETING:**

The products are manufactured and marketed by:  
CPI Limited  
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## 1.1 ASSESSMENT

In the opinion of the NSAI Agrément, EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render, 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 NSAI Agrément Certificate.

## 1.2 BUILDING REGULATIONS 1997 to 2006

### REQUIREMENT:

#### **Part D – Materials and Workmanship**

**D3** – EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render, as certified in this Certificate, are comprised of 'proper materials' fit for their intended use (see Part 4 of this Certificate).

**D1** – EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render, as certified in this Certificate, meet the requirements for workmanship.

#### **Part A - Structure**

##### **A1 – Loading**

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render, as certified in this Certificate, have adequate strength and stability (see Parts 3 and 4 of this Certificate).

##### **A2 – Ground Movement**

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render, 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**

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render, 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**

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render 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. EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render, 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)**

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render 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**

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render 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

**EuroMix One Coat Coloured Render** is a one coat decorative render, applied by hand or mobile spray machine to suitably prepared internal or exterior substrates of brickwork, block work and concrete suited to receive a rendered finish. It is available in a range of colours with textured finishes produced in a separate process following application. The minimum thickness (finished thickness after texturing) is 15mm for one coat application. A render thickness of 15 mm has a weight of between 22 kg/m<sup>2</sup> and 25kg/m<sup>2</sup>.

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

**EuroMix General Purpose Multi-Coat Render** is a traditional render mix complying with traditional mix proportions for multi-coat rendering applications. It is suitable for hand or spray application and can be used as a backing and finishing coat in external rendering and as a base coat for internal plastering applications. It is available in all mix designations per BS 5262:1991: *Code of practice for external rendering* and strength categories per I.S. EN 998-1:2003: *Specification for mortar for masonry – Part 1: Rendering and plastering mortar*. EuroMix General Purpose Render is supplied in natural colour grey.

Application of the EuroMix General Purpose Render must be carried out in accordance with the Certificate holder's instructions and the relevant recommendations of I.S. EN 13914-1:2005 *Design, preparation and application of external rendering and internal plastering – External rendering*.

**EuroMix General Purpose One Coat Render** is designed for hand or spray application in a single coat rendering application where traditional multi coat rendering has been specified. It may be finished with any traditional finish e.g. Float, sponge, nap etc.

EuroMix General Purpose One Coat Render is manufactured using traditional mix proportions, waterproofed to give equivalent waterproof properties to that of EuroMix One Coat Coloured Render. EuroMix General Purpose One Coat Render does not require a scratch / backing coat render. The minimum thickness (finished thickness after texturing) is 15mm. A render thickness of 15mm has a weight of between 22 Kg/m<sup>2</sup> and 25kg/m<sup>2</sup>. EuroMix General Purpose One Coat Render is supplied in natural colour grey.

It is essential that application of the EuroMix General Purpose One Coat Render is carried out by experienced rendering contractors, strictly in accordance with the Certificate holder's instructions.

Except for the addition of mixing water, each render is supplied with all of the ingredients fully mixed in plastic or paper 25kg sacks, sealed 1 tonne bulk bags or in bulk silos.

### 2.1.1 Ancillary Items

Materials required may include:

- Rigid PVC or Stainless steel beading including:
  - CPI 3307 corner angle bead
  - CPI 3312 stop bead
  - CPI 6440 reveal bead
  - CPI 3332 belcast bead
- Alkali resistant mesh
- CPI EuroMix High Bond – a highly polymer modified mix, specially designed to give improved bond on low suction or friable backgrounds.

Special equipment and tools required may include:

- Plasterers knife
- Plasterers Float & Sponge
- Trowel, steel trowel
- Large and small scrapers
- Ashlar cutter
- Plasterer's straight edge
- Thickness gauge
- Soft bristle brush
- Measuring bucket
- Spraying machine (M.Tec, Putzmeister, PFT, Brinkman, Turbosol, Lancy etc.) and spray gun.

## 2.2 MANUFACTURE

Each of the render types are manufactured by mixing the main components, weighed by a computer controlled weighing machine, with minor additives.

### 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 CPI have been assessed and registered as meeting the requirements of ISO 9001:2000 by the National Standards Authority of Ireland (NSAI), Registration No. 19.0871.

### 2.3 DELIVERY, STORAGE AND MARKING

Each of the render types are delivered on pallets in 25kg plastic or paper sacks (56 sacks per pallet) covered with a pallet cover, sealed 1 tonne bulk sacks, or in bulk silos. Each 25kg sack identifies the product name and includes basic mixing and application instructions. In addition each sack bears the NSAI Agrément logo incorporating the number of this certificate. The product colour and date of manufacture is printed on labels attached to each sack. Product identification and NSAI Agrément Certification information is also displayed on labels attached to the one tonne sacks and silos.

Bagged EuroMix Render products must be stored off the ground, under cover protected from moisture and frost. The sacks should be used in rotation with consideration to the product's shelf life.

Each of the render products are cement-based and contain additives and must therefore be handled using routine precautions for cementitious materials.

### 2.4 INSTALLATION

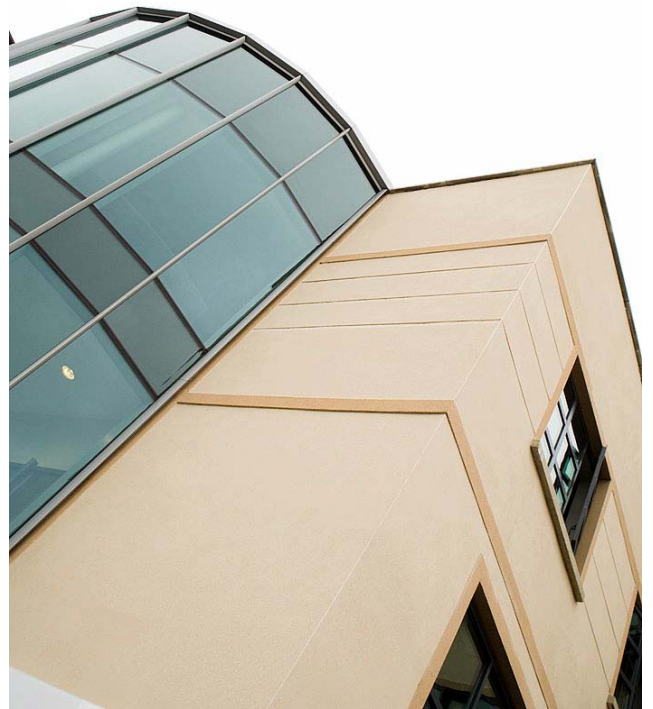
#### 2.4.1 Installation Control

Application of EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render must be carried out in accordance with the Certificate holder's instructions and the relevant recommendations of I.S. EN 13914-1&2:2005 *Design, preparation and application of external rendering and internal plastering – External rendering / Design considerations and essential principles for internal plastering* and BS 5262:1991 *Code of practice for external rendering*.

#### 2.4.2 Site Survey and Preliminary Work

The requirements of I.S. EN 13914-1:2005 and BS 5262:1991 should be considered regarding the suitability of the substrate and any remedial action that might be required. Information and advice is available from the Certificate holder in this regard.

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Renders are satisfactory for use on backgrounds of brickwork, block work and concrete prepared and suited to receiving a rendered surface. It is essential that such walls are designed and constructed to prevent moisture penetration and the formation of condensation. These render products are not suitable for application to gypsum plaster. Previously decorated surfaces must be assessed on a case-by-case basis to determine their suitability to receive a render and any pre-treatment that may be required. The Certificate holder's advice should be sought in this regard.



Where the render products may be exposed to severe impact (e.g. some industrial sites), or if they are to be applied over existing cracks in the background, precautions may be required to reduce the risk of damage. The Certificate holder can provide additional advice in this regard.

Older buildings at coastal locations should be checked for salt content of the substrate. Test results will determine the suitability of the substrate to receive a render. In addition EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render or EuroMix General Purpose One Coat Renders should not be applied to any area where there is evidence of corrosion of steel reinforcement in the masonry.

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 dip on the underside and be designed to prevent water running onto the wall below, or into the jambs. New buildings should incorporate suitably wide walls.

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

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



#### 2.4.3 Preparation of Substrate

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Renders should only be applied to 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. Any 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 levelled to minimise variations in the finished product.

Each of the renders rely on a combination of suction and surface texture to achieve bond. The recommendations set out in I.S. EN 13914-1:2005 and BS 5262:1991 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 advice from the certificate holder should be sought. 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 water.

When the substrate consists of different materials, or a material of variable suction the recommendations of I.S. EN 13914-1:2005 and BS 5262:1991, and the Certificate holder's instructions must be followed to ensure even quality and appearance of the product.

#### (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 I.S. 325-1:1986 *Structural use of unreinforced masonry* and I.S. 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 the renders are to be applied at wall openings incorporating concrete lintels.

For each project involving the use of the EuroMix range of 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. Application of the EuroMix render range on to this type of background is limited to a maximum of two storeys above ground level. The manufacturer's guidance should be sought in cases where the EuroMix range of renders are to be applied to backgrounds of negligible suction (dense smooth concrete, or stone).

**CPI EuroMix High Bond** is a highly polymer modified mix, specially designed to provide an adhesive bridge on low absorption substrates or friable backgrounds. The Certificate holder's advice should be sought on its application.



#### 2.4.4 Application

##### General

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 when using the EuroMix One Coat Coloured Render, 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, sacks of the product should be checked for batch numbers. Sacks with different batch numbers should be checked for colour consistency.

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

##### **EuroMix One Coat Coloured Render and EuroMix General Purpose One Coat Render**

It is essential that application of the EuroMix One Coat Coloured Render and EuroMix General Purpose One Coat render is carried out by experienced rendering contractors, strictly in accordance with the Certificate holder's instructions and this Certificate.

Both renders should be mixed in a suitable paddle mixer or continuous spray-rendering machine with clean water at a rate of approximately 5 to 6 litres to each 25 kg of the product. The mixing should be continued until a uniform material with a consistent workability is achieved.

Once ready, the mixture must be applied within approximately one hour (depending on temperature).

Application must be carried out strictly in accordance with this Certificate, the Certificate holder's instructions and the relevant recommendations of I.S EN 13914-1:2005 and BS 5262:1991. Advice should be sought from the Certificate holder regarding suitable equipment for mechanical application.

The render is applied in two passes, the first to give a 3mm 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.

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

Finishes such as scraped, rough stone and ashlar stone may be produced on both products, however a floated, sponged or napped finish is only possible with the EuroMix General Purpose One Coat Render. Advice on how to achieve these finishes should be sought from the Certificate holder.

##### **EuroMix General Purpose Multi-Coat Render**

Application must be carried out in accordance with the relevant recommendations of I.S. EN 13914-1&2:2005 and BS 5262:1991. When mechanically applied it is essential that application of the EuroMix General Purpose Multi-Coat renders is carried out by experienced rendering contractors. No scud coat is required to key this product when applied by spray machine on to a standard block work substrate free from dirt, dust or vegetation. Advice should be sought from the Certificate holder regarding suitable equipment for mechanical application and any pre-treatment that may be required to the substrate.

The requirements BS 5262:1991 must be considered regarding the selection of mix designation. Advice should be sought from the certificate holder in case of doubt.

##### **Curing of EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render**

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

The products 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.

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.

#### 2.4.5 Design Details

##### (i) Parapets

Render 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 or CPI PVC 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. Renders are 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 EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render or EuroMix General Purpose One Coat Render. The mesh should be bedded in a thin coat of 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 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 or CPI PVC beading should be used (see Part 4.4 of this Certificate).



### 3.1 GENERAL

**EuroMix One Coat Coloured Render** 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. EuroMix One Coat Coloured Render can also be used as an internal decorative render.

**EuroMix General Purpose Multi-Coat Render** complies with traditional mix proportions and constituents and can be supplied in any mix design to suit the specific application requirements. It can be used as a traditional two/three-coat system or internally as a backing coat for a gypsum finish.

**EuroMix General Purpose One Coat Render** will enhance the weather resistance of the concrete and masonry walls. It complies with traditional mix proportions and constituents and is supplied in a mix design to suit the specific application requirements. It can be used where traditional multi-coat rendering have been specified used externally or internally as required. It is suitable for painting if required using a suitable masonry paint

### 3.2 STRENGTH AND STABILITY

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render comply with the relevant sections of IS EN 13914-1&2:2005 and BS 5262:1991 and 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.

**EuroMix One Coat Coloured Render and EuroMix General Purpose One Coat Render** may be taken as being equivalent to Type 3 renders to BS 5262:1991 or CS II to I.S. EN 998-1:2003 and has adequate resistance to impact and abrasion for use in all normal situations.

**EuroMix General Purpose Multi-Coat Render** can be supplied in all mix designations identified in BS 5262:1991 Table 1 or strength categories to I.S. EN 998-1:2003.

### 3.3 STRUCTURAL FIRE SAFETY

EuroMix One Coat Coloured Renders, EuroMix General Purpose Multi-Coat Renders and EuroMix General Purpose One Coat Renders, being cementitious, 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. The EuroMix range of renders are non-toxic in fire conditions.

When tested in accordance with BS 476-6:1989 and BS 476-6:1989: *Fire tests on building materials and structures. - Method of test for fire propagation for products* and BS 476-7:1997: *Fire tests on building materials and structures. - Method of test to determine the classification of the surface spread of flame of products*, **EuroMix One Coat Coloured Render** achieved a fire propagation index (I) of 0.1, and a sub-index ( $i_1$ ) of 0.1 and a Class 1 surface.

### 3.4 WEATHER RESISTANCE

The EuroMix range of renders, when used on masonry construction meeting the requirements of I.S 325:Part 2, and when applied in accordance with this Certificate, the manufacturer's instructions, and the relevant recommendations of I.S EN 13914-1:2005 and BS 5262:1991 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 2007, the EuroMix range of renders have a Class O spread of flame classification and are non-combustible.

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

EuroMix One Coat and General Purpose renders are non-toxic in normal use and fire conditions.

#### 4.2 THERMAL CONDUCTIVITY

The EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render and EuroMix General Purpose One Coat Render may be taken to have a thermal conductivity ( $\lambda$ ) value of 0.57 W/mK.

#### 4.3 WATER VAPOUR PERMEABILITY

Water vapour permeability coefficient values for the three render products per I.S. EN 1015-19: 1999: *Methods for Test for Mortar Masonry – Determination of water vapour permeability of hardened rendering and Plastering mortars* are shown in Table 1.

Table 1: Water Vapour Permeability Coefficient ( $\mu$ ) to I.S. EN 1015-19

EuroMix Render	Water Vapour Permeability ( $\mu$ )
One Coat Coloured	0.25
General Purpose Multi-Coat	0.16
General Purpose One Coat	0.23

#### 4.4 DURABILITY

##### 4.4.1 Design Life

EuroMix One Coat Coloured Render, EuroMix General Purpose Multi-Coat Render, and EuroMix General Purpose One Coat Render, used in accordance with this Certificate, the manufacturer's instructions, and using CPI's PVC or 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.

#### 4.4.2 Aesthetic Performance

The aesthetic performance of the systems e.g. due to discolouration, soiling, staining, algal growth or lime bloom is dependent on a range of factors such as:

- type, color and texture of surface finish;
- water retaining properties of the finish;
- architectural form and detailing;
- building orientation/elevation;
- local climate/exposure conditions/atmospheric pollution.

Adequate consideration should be given, at the design stage, to all of the above, to ensure that the level of maintenance necessary to preserve the aesthetics of the building is acceptable.

The **EuroMix One Coat Coloured Renders** may become discoloured with time depending on the local environment. Cleaning with water and a stiff brush can normally restore appearance. In industrial atmospheres, light-coloured renders should not be used.

#### 4.5 MAINTENANCE AND REPAIR

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

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 I.S EN 13914-1:2005 and BS 5262:1991.

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

- Sieve grading
- Ash content
- Density
- Effects of freeze/thaw
- Initial surface absorption
- Water vapour permeability
- Effect of accelerated ageing on bond strength
- Impact resistance

#### 4.7 OTHER INVESTIGATIONS

- (i) Existing data on product's 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 products.

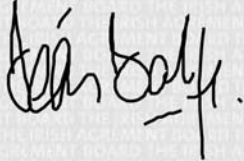
- 5.1** National Standards Authority of Ireland ("NSAI") following consultation with NSAI Agrément has assessed the performance and method of installation of the product/process and the quality of the materials used in its manufacture and certifies the product/process to be fit for the use for which it is certified provided that it is manufactured, installed, used and maintained in accordance with the descriptions and specifications set out in this Certificate and in accordance with the manufacturer's instructions and usual trade practice. This Certificate shall remain valid for five years from date of 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 NSAI Agrément are paid.
- 5.2** The NSA Agrément mark and certification number may only be used on or in relation to product/processes in respect of which a valid Certificate exists. If the Certificate becomes invalid the Certificate holder must not use the NSAI Agrément mark and certification number and must remove them from the products already marked.
- 5.3** In granting Certification, the NSAI makes no representation as to;
- (a) the absence or presence of patent rights subsisting in the product/process; or
  - (b) the legal right of the Certificate holder to market, install or maintain the product/process; or
  - (c) whether individual products have been manufactured or installed by the Certificate holder in accordance with the descriptions and specifications set out in this Certificate.
- 5.4** This Certificate does not comprise installation instructions and does not replace the manufacturer's directions or any professional or trade advice relating to use and installation which may be appropriate.
- 5.5** Any recommendations contained in this Certificate relating to the safe use of the certified product/process are preconditions to the validity of the Certificate. However the NSAI does not certify that the manufacture or installation of the certified product or process in accordance with the descriptions and specifications set out in this Certificate will satisfy the requirements of the Safety, Health and Welfare at Work Act 2005, or of any other current or future common law duty of care owed by the manufacturer or by the Certificate holder.
- 5.6** The NSAI is not responsible to any person or body for loss or damage including personal injury arising as a direct or indirect result of the use of this product or process.
- 5.7** Where reference is made in this Certificate to any Act of the Oireachtas, Regulation made thereunder, Statutory Instrument, Code of Practice, National Standards, manufacturer's instructions, or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this Certification.

## NSAI Agrément

This Certificate No. **06/0257** is accordingly granted by the NSAI to **CPI Ltd.** on behalf of NSAI Agrément

Date of original Issue: **October 2006**

Signed



**Seán Balfe**  
Director of NSAI Agrément

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

**Revisions: July 2008**

- Inclusion of EuroMix General Purpose One Coat Render