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**Agrément Certificate**

**97/3428**

Product Sheet 10 Issue 1

## K REND EXTERNAL RENDERS

### K REND K MONO

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to K Rend K Mono, a one-coat, cementitious, self-coloured render, for application to suitably prepared and sound exterior substrates of brickwork, blockwork, concrete and traditional sand/cement render on new or existing buildings.

(1) Hereinafter referred to as 'Certificate'.

#### The assessment includes

##### Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

##### Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

##### Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review



#### KEY FACTORS ASSESSED

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability

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

Date of issue: 5 October 2023

Hardy Giesler  
Chief Executive Officer

*This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.*

*The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).*

*Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.*

*The Certificate should be read in full as it may be misleading to read clauses in isolation.*

*Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.*

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## SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

### Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that K Rend K Mono, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



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

<b>Requirement:</b>	<b>B4(1)</b>	<b>External fire spread</b>
Comment:		The product is unrestricted by this Requirement. See section 2 of this Certificate.
<b>Requirement:</b>	<b>C2(b)</b>	<b>Resistance to moisture</b>
Comment:		The product will contribute to satisfying this Requirement. See section 3 of this Certificate.
<b>Requirement:</b>	<b>C2(c)</b>	<b>Resistance to moisture</b>
Comment:		The product will contribute to satisfying this Requirement. See section 3 of this Certificate.
<b>Requirement:</b>	<b>7(1)</b>	<b>Materials and workmanship</b>
Comment:		The product is acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>7(2)</b>	<b>Materials and workmanship</b>
Comment:		The product is unrestricted by this Regulation. See section 2 of this Certificate.



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

<b>Regulation:</b>	<b>8(1)(2)</b>	<b>Fitness and durability of materials and workmanship</b>
Comment:		The product is acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>8(3)</b>	<b>Fitness and durability of materials and workmanship</b>
Comment:		The product is unrestricted by this Regulation. See section 2 of this Certificate.
<b>Regulation:</b>	<b>9</b>	<b>Building standards applicable to construction</b>
Standard:	2.6	Spread to neighbouring buildings
Standard:	2.7	Spread on external walls
Comment:		The product is unrestricted by these Standards, with references to clauses 2.6.4 <sup>(1)(2)</sup> , 2.6.5 <sup>(1)</sup> , 2.6.6 <sup>(2)</sup> and 2.7.1 <sup>(1)(2)</sup> . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> , 3.10.2 <sup>(1)(2)</sup> , 3.10.3 <sup>(1)(2)</sup> and 3.10.5 <sup>(1)(2)</sup> . See section 3 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.15.1 <sup>(1)(2)</sup> , 3.15.4 <sup>(1)(2)</sup> and 3.15.5 <sup>(1)(2)</sup> . See section 3 of this Certificate.
Standard:	7.1(a)	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.

<b>Regulation:</b>	<b>12</b>	<b>Building standards applicable to conversions</b>
<b>Comment:</b>		Comments 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 (as amended)

<b>Regulation:</b>	<b>23(1)(a)(i)</b>	<b>Fitness of materials and workmanship</b>
<b>Comment:</b>	<b>(ii)(iii)(b)(i)</b>	The product is acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>23(2)</b>	<b>Fitness of materials and workmanship</b>
<b>Comment:</b>		The product is unrestricted by this Regulation. See section 2 of this Certificate.
<b>Regulation:</b>	<b>28(b)</b>	<b>Resistance to moisture and weather</b>
<b>Comment:</b>		The product can contribute to satisfying this Regulation. See section 3 of this Certificate.
<b>Regulation:</b>	<b>29</b>	<b>Condensation</b>
<b>Comment:</b>		The product can contribute to satisfying this Regulation. See section 3 of this Certificate.
<b>Regulation:</b>	<b>36(a)</b>	<b>External fire spread</b>
<b>Comment:</b>		The product is unrestricted by this Regulation. See section 2 of this Certificate.

## Additional Information

### NHBC Standards 2023

In the opinion of the BBA, K Rend K Mono, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards, Part 6 Superstructure (excluding roofs), Chapter 6.11 Render*.

## Fulfilment of Requirements

The BBA has judged K Rend K Mono to be satisfactory for use as described in this Certificate. The product has been assessed for use as a render.

## ASSESSMENT

### Product description and intended use

The Certificate holder provided the following description for the product under assessment. K Rend K Mono is for application to suitably prepared and sound exterior substrates of brickwork, blockwork, concrete and traditional sand/cement render and consists of a one-coat, self-coloured cementitious render containing white cement, mineral aggregates, pigments and additives.

The product is available in a range of colours.

The product is applied to a minimum thickness of 15 mm and has an applied weight of between 24 and 32 kg·m<sup>-2</sup>.

## Applications

The product is intended for use as a one-coat render on new or existing buildings on the following suitably prepared and sound substrates of:

- brickwork
- blockwork
- concrete
- traditional sand/cement render.

The assessment and this Certificate only include applications to walls 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.

## Product assessment – key factors

The product was assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

### 1 Mechanical resistance and stability

Data were assessed for the following characteristics.

#### 1.1 Strength and stability

Results of hygrothermal performance tests are given in Table 1.

*Table 1 – Resistance to external factors*

Product assessed	Assessment method	Requirement	Result
K Rend K Mono	ETAG 004 : 2013, Section 5.1.7.1.2 Bond strength Control	Value achieved	0.17 MPa
K Rend K Mono	Flexural strength to BS EN 1015-11 : 1999	Value achieved After 7 days After 28 days	1.7 N-mm <sup>-2</sup> 2.2 N-mm <sup>-2</sup>
K Rend K Mono	Compressive strength to BS EN 1015-11 : 1999	Category CS II as Table 1 BS EN 998-1	Pass

1.2 On the basis of data assessed, the product will improve the weather resistance of a wall and provide a new decorative finish.

1.3 The product has adequate resistance to impact and cracking 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.

1.4 In England, Wales and Northern Ireland, the product is suitable for use in exposure zones up to and including the 'severe' wind-driven rain index category in accordance with PD 6697 : 2019.

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

## 2 Safety in case of fire

Data were assessed for the following characteristics.

2.1 The render system with 15 - 20 mm K Rend K Mono and a density of 1400 – 1500 kg·m<sup>-3</sup>, is classified<sup>(1)</sup> as A1 to BS EN 13501-1 : 2018. This classification applies to the complete colour range.

(1) Test reports WF51412 and WF51413, issued by Warringtonfire. Copies of the reports are available from the Certificate holder upon request.

2.2 On the basis of data assessed, the construction given in section 2.1 will be unrestricted in terms of height and distance from the boundary by the documents supporting the national Building Regulations.

2.3 The classification and permissible areas of use of other specifications and constructions must be established in accordance with the documents supporting the national Building Regulations.

2.4 Designers must refer to the relevant national Building Regulations and guidance for alternative approaches and detailed conditions of use, particularly in respect of requirements for substrate fire performance and combustibility limitations for other materials and components used in the overall wall construction.

## 3 Hygiene, health and the environment

Data were assessed for the following characteristics.

### 3.1 Water vapour permeability

The result of water vapour permeability testing is given in Table 2.

Table 2 <i>Water vapour permeability results</i>			
Product assessed	Assessment method	Requirement	Result
K Rend K Mono	EAD 040083-00-0404 : 2019, Refers to BS EN ISO 7783 : 2018 Equivalent air layer thickness (S <sub>a</sub> )	Value achieved	0.15 m

## 4 Safety and accessibility in use

Not applicable.

## 5 Protection against noise

Not applicable.

## 6 Energy economy and heat retention

Not applicable.

## 7 Sustainable use of natural resources

Not applicable.

## 8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the product were assessed.

8.2 Specific test data were assessed for the following.

8.2.1 Durability test results are given in table 3.

*Table 3 Durability results*

Product assessed	Assessment method	Requirement	Result
K Rend K Mono	Water absorption to EAD 040083-00-0404	If $\geq 0.5 \text{ kg}\cdot\text{m}^{-2}$ then freeze-thaw behaviour is required	$0.13 \text{ kg}\cdot\text{m}^{-2}$
K Rend K Mono	Hygrothermal behaviour to EAD 040083-00-0404 : 2019	No observable issues	Pass
K Rend K Mono	EAD 040083-00-0404 : 2019 Bond strength	$\geq 0.08 \text{ MPa}$ or cohesive rupture	Pass
K Rend K Mono	EAD 040083-00-0404 : 2019 Section 2.2.8 Impact resistance	No visible damage	Pass

### 8.3 Service life

8.3.1 Under normal service conditions, the product will have a life of at least 30 years, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

8.3.2 The system may be discoloured by water runs and care must be taken to ensure that normal architectural details for shedding water clear of the building are present and functioning, and that gutters and downpipes are in good condition.

8.3.3 The product may become discoloured over time, the rate depending on the local environment. Appearance can normally be restored by cleaning with water, mild detergent and a stiff brush. In industrial atmospheres, light colours must be avoided.

8.3.4 The product may suffer from algal growth in a similar manner to traditional external rendered finishes. For additional preventative advice, the Certificate holder must be consulted, but such advice is outside of the scope of this Certificate.

8.3.5 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 lighter colours. For additional preventative advice, the Certificate holder must be consulted.

## **PROCESS ASSESSMENT**

Information provided by the Certificate holder was assessed for the following factors:

### **9 Design, installation, workmanship and maintenance**

#### 9.1 Design

9.1.1 The design process was assessed by the BBA, and the following requirements apply in order to satisfy the performance assessed in this Certificate:

9.1.2 New constructions to be rendered with the product must be designed and constructed in accordance with the relevant recommendations of BS EN 1996-2 : 2006 and its UK National Annex, and BS EN 13914-1 : 2016.

9.1.3 The designer must select a construction appropriate to its location, paying due attention to design, detailing and workmanship, and the materials to be used.

9.1.4 It is essential that all walls where the product is applied 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.

9.1.5 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. In instances where this is not the case, the Certificate holder must be consulted for advice on substrate preparation, but such advice is outside of the scope of this Certificate.

9.1.6 At the top of walls, the product must be protected by an adequate overhang or by adequately sealed, purpose-made flashing. The Certificate holder can advise on suitable specifications for particular circumstances, but such advice is outside the scope of this Certificate.

9.1.7 The renders must not be used on water-repellent substrates, on plaster or plaster paint or coatings.

## 9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation must be carried out in accordance with this Certificate, the Certificate holder's instructions and the relevant recommendations of BS EN 13914-1 : 2016. A summary of instructions and guidance are provided in Annex A of this Certificate.

9.2.3 Any damage to the product assessed in this Certificate must be repaired in accordance with section 9.4 and reinspected, in order to maintain product performance.

## **Substrate**

9.2.4 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 and doors and at eaves
- DPC level
- exact position of movement joints
- areas where flexible sealants must be used
- any alterations to external plumbing, fixtures and fittings.

9.2.5 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 using an appropriate render to minimise variations in the thickness of the product. For additional advice, the Certificate holder should be consulted, but such advice is outside of the scope of this Certificate.

## **Preparation**

9.2.6 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.

9.2.7 It is essential that new and existing substrates to be rendered are clean.

## **Application**

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

9.2.90 The relevant recommendations of BS EN 13914-1 : 2016 must be followed to achieve a satisfactory bond. 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 contaminants which may prevent adequate adhesion.

9.2.10 The product must not be applied in rain or mist, at temperatures below 5°C or above 35°C, or if exposure to

frost is likely to occur during curing. In common with traditional sand/cement renders, the product must not be applied to frost-bound walls.

9.2.11 Wall surface temperatures above 40°C will accelerate the chemical setting of the process and, if the set is too rapid, complete hydration may not be achieved.

## **Curing**

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

9.2.13 Care must be taken to protect the product from rapid drying owing to exposure to direct sun or drying wind to ensure complete hydration of the cement.

### **9.3 Workmanship**

Practicability of installation was assessed, on the basis of the Certificate holder's information and site visits to witness installations in progress. To achieve the performance described in this Certificate, installation of the product must be carried out by a competent skilled renderer or a contractor, experienced with this type of product.

### **9.4 Maintenance and repair**

9.4.1 Ongoing satisfactory performance of the product in use requires that it is suitably maintained. The guidance provided by the Certificate holder was assessed by the BBA, and found to be appropriate and adequate.

9.4.2 Regular maintenance checks must be carried out to ensure that architectural details for shedding water clear of the building are present and functioning. Any damage to the render must be repaired immediately.

9.4.3 Any damage to the render must be repaired immediately in accordance with the relevant recommendations of BS EN 13914-1 : 2016. The advice of the Certificate holder must be sought for particular installations, but such advice is outside the scope of this Certificate.

## **10 Manufacture**

10.1 The production processes for the product have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

†10.2 The BBA has undertaken to review 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.

## **11 Delivery and site handling**

11.1 The Certificate holder stated that the product is delivered to site in packaging bearing the product name, Certificate holder's name, batch number and date of production.



11.2 Delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.2.1 The product is a cementitious material and must be stored off the ground under cover, in dry conditions and protected from moisture and frost.

11.2.2 To avoid 'warehouse set' caused by compaction, the height of bags stacked on a pallet must not exceed 1 m and no more than four pallets must be stacked.

11.2.3 The product must be used in the order in which it is received, and each delivery must be kept separate to avoid confusion.

Supporting information in this Annex is relevant to the product but has not formed part of the material assessed for the Certificate.

### Construction (Design and Management) Regulations 2015

### Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

### CLP Regulations

The Certificate holder has taken the responsibility of classifying and labelling the product under the *GB CLP Regulation* and *CLP Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

### CE marking

The Certificate holder has taken the responsibility of CE marking the product, in accordance with harmonised European Standard EN 998-1 : 2016.

### Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015, BS EN ISO 14001 : 2015 and ISO 45001 : 2018 by BSI (Certificates FM 85394, EMS 611117 and OHS 611118 respectively).

### Additional information on installation

#### **General**

A.1 When use of the product for the first time is being considered, the advice of Certificate holder should be sought, but such advice is outside of the scope of this Certificate.

A.2 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.

A.3 To minimise colour shade variations and 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.

#### **Site survey and preliminary work**

A.4 Advice concerning the site survey and preliminary work for application of the product is available to the designer or rendering contractor on request from the Certificate holder, but such advice is outside of the scope of this Certificate.

A.5 The mortar in new brickwork must conform to the Certificate holder's specification.

A.6 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.

A.7 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. Where this may not be practical, the Certificate holder should be consulted for additional advice, but such advice is outside of the scope of this Certificate.

## Preparation of substrate

A.8 The relevant recommendations of BS EN 13914-1 : 2016 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.

A.9 It is essential that the substrate to be rendered is clean. This applies to both new and old surfaces.

A.10 The product must not be used on water-repellent substrates, plaster or painted plaster, or coatings.

A.11 When the substrate consists of different materials or a material of variable suction, the recommendations of BS EN 13914-1 : 2016 and the Certificate holder's instructions must be followed to ensure even quality and appearance of the render.

A.12 When applying the product to porous or high-suction substrates, particularly in warm weather, suction control will be required by lightly spraying with a fine mist of clean water evenly before the render is applied. Saturation should be avoided as this will cause excessive shrinkage.

A.13 For very smooth or very irregular surfaces, the advice of the Certificate holder should be sought, but such advice is outside of the scope of this Certificate.

A.14 Wherever possible, independent scaffolding should be used to avoid the need subsequently to make good putlog holes and other breaks in the work.

A.15 Angles may be formed using PVC beads or timber battens. The Certificate holder can advise on suitable materials, but such advice is outside of the scope of this Certificate.

## Mixing

A.16 K Rend K Mono is added to clean water at a rate of approximately 5.5 litres of water per 25 kg of product. The mixture is prepared mechanically in either a tumble mixer, with a drill and paddle, or a suitable render spray machine. The mixing should take between 5 and 10 minutes, until a homogeneous mass is obtained.

A.17 Where excessive concentrations of dust may accumulate, the measures defined in the Health and Safety Executive Publication EH40/2005 *Workplace exposure limits for unlisted substances* (2nd Edition 2011, amended March 2013) should be adhered to.

A.18 Once the product has been mixed, additional water should not be added. The product may be remixed to regain a workable consistency.

A.19 In common with traditional renders, slumping of the material may occur if the mix is too wet, increasing the risk of settlement cracks developing.

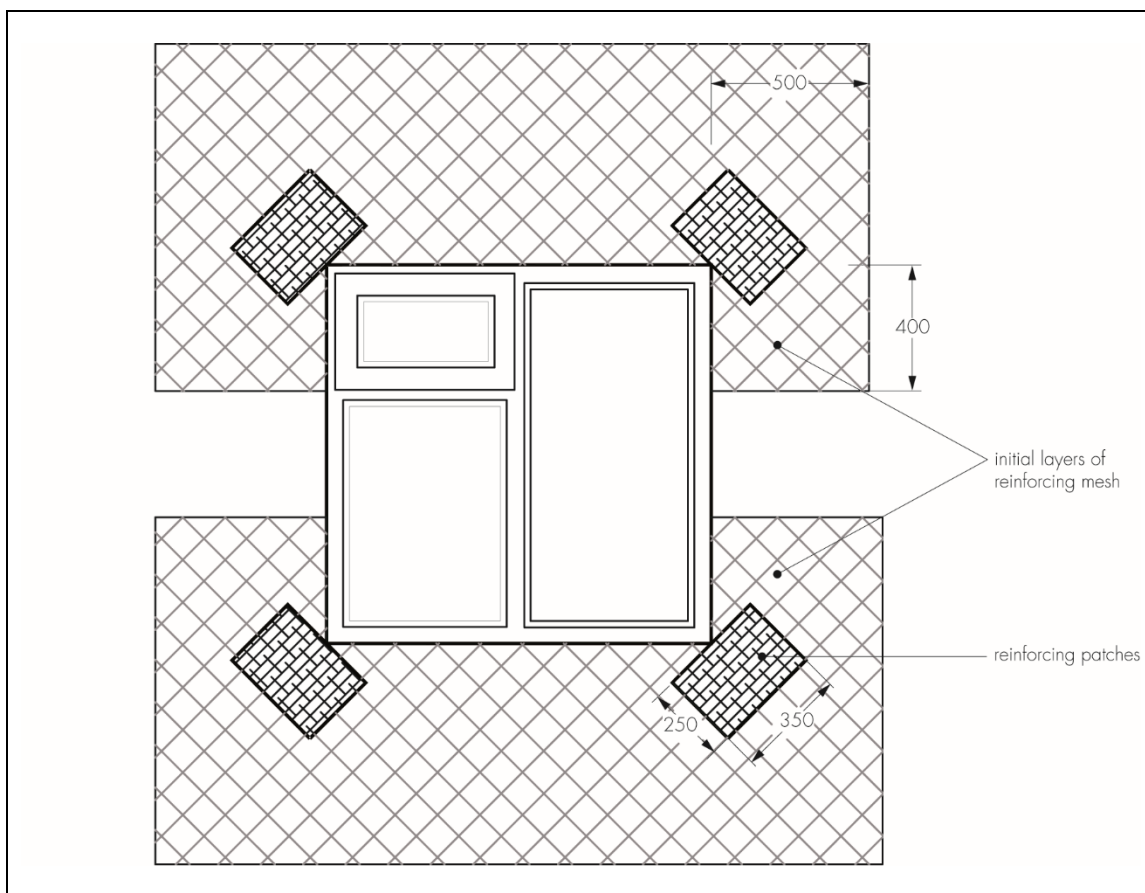
## Application

A.20 Application may be carried out either mechanically by spray application, or manually using a trowel or float. Advice should be sought from the Certificate holder regarding suitable equipment and water/render ratios for mechanical spray application, but such advice is outside of the scope of this Certificate.

A.21 The thickness of the finished coating, whether scraped or with a raised texture, should not be less than 15 mm at its lowest point or more than 25 mm. Scraped finishes will require the application of 2 to 3 mm more than the specified thickness to allow for material lost in the scraping process.

A.22 Reinforcing mesh is applied around all openings including reveals (and is immediately embedded into a first pass), followed by additional pieces of reinforcing mesh (which are also embedded into a first pass) applied diagonally at the corners of openings, to provide the necessary reinforcement in accordance with the Certificate holder's instructions (see Figure 1).

Figure 1 Reinforcement at openings



#### Traditional application

A.23 The product must be allowed to harden for between 5 and 16 hours, depending on the ambient temperature, before the surface is scraped using a suitable tool.

A.24 No areas, however small, should be left unscraped, otherwise variations will occur in both shade and texture. Scraping should be sufficient to remove the surface skin of mortar to expose the larger particles of aggregate. After scraping, the surface should be gently brushed to remove dust.

#### Spray application

A.25 The spray gun must be held at 90°, at a distance of between 75 and 100 mm from the work surface, so that ribbons of the material are reasonably flat to facilitate ruling.

A.26 If a scraped finish is desired, the product is applied and ruled level to a uniform finished thickness.

A.27 The product can be applied in a one-coat one-pass operation to a minimum finished thickness of 15mm. The thickness of the applied coating should be between 16 and 18 mm to allow for 2-3 mm of material that will be lost in the scraping process.

A.28 On low-suction surfaces, a first pass of just over half the specified thickness, followed by a second pass when the first pass has 'picked up' but not set, may be necessary.

A.29 It is essential that each pass of the product is applied using adequate pressure to exclude air and to ensure a satisfactory bond.

A.30 When sufficiently hard, generally between 5 and 16 hours after application, the surface is scraped using a suitable tool, to a maximum uniform thickness of 25 mm.

A.31 For a roughcast finish, the first pass is applied to a minimum thickness of 12 mm and ruled level.

A.32 A second pass of the product is applied after one to two hours, using a swirling action of the gun at a distance of 600 to 900 mm from the work surface. To ensure an even textured appearance, the gun should be held at 90° to the work surface.

A.33 The required texture can be achieved by fitting a suitable spray cap and adjusting the air supply to the gun.

## **Curing**

A.34 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.

A.35 Care must be taken to protect the render from drying too rapidly owing to exposure to direct sunlight or drying wind. In these conditions, the applied render should be damped down or gently sprayed with water occasionally during the first three days after application, to ensure complete hydration of the cement.

## **Finishing**

A.36 On completion of the rendering, the surface must be checked to ensure an even coverage, texture and consistency of colour.

A.37 Other finishes may be produced. Advice on how to achieve these should be sought from the Certificate holder, but such advice is outside of the scope of this Certificate.

## Bibliography

BS EN 772-5 : 2016 *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*

NA to BS EN 1996-2 : 2006 *UK National Annex to Eurocode 6 — Design of masonry structures — Design considerations, selection of materials and execution of masonry*

BS EN 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using data from reaction to fire tests*

BS EN 13914-1 : 2016 *Design, preparation and application of external rendering and internal plastering — External rendering*

BS EN ISO 9001 : 2015 *Quality management systems — Requirements*

BS EN ISO 14001 : 2015 *Environmental management systems — Requirements with guidance for use*

BS EN ISO 7783 : 2018 *Paints and varnishes — Determination of water vapour transmission properties — Cup method*

ETAG 004 : 2013 *Guideline for European technical approval of external thermal insulation composite systems (ETICS) with rendering*

EAD 040083-00-0404 : 2019 *External thermal insulation composite systems (ETICS) with rendering*

EN 998-1 : 2016 *Specification for mortar for masonry — Rendering and plastering mortar*

ISO 45001 : 2018 *Occupational health and safety management systems — A practical guide for SMEs*

PD 6697 : 2019 *Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2*

### Conditions

1 This Certificate:

- relates only to the product 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.

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.

3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product 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.

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

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

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product 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.