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**Agrément  
 Certificate  
 No 97/3428**  
*Second issue\**

Designated by Government  
 to issue  
 European Technical  
 Approvals

## K-REND EXTERNAL RENDERS

Enduit de surface  
 Oberflächenbeschichtung

# Product



• THIS CERTIFICATE RELATES TO K-REND EXTERNAL RENDERS DESCRIBED IN THE ACCOMPANYING DETAIL SHEETS.


• The products have the characteristics described in the accompanying Detail Sheets and are for application to suitably prepared exterior substrates of cement render, brickwork, blockwork and concrete suited to receive a rendered finish.

• It is essential that application of the products is carried out by experienced rendering contractors strictly in accordance with the manufacturer's instructions and this Certificate.

continued

## Regulations — Detail Sheet 1

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

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

Requirement:	B4(1)	External fire spread (walls)
Comment:		The products meet this Requirement. See the tinted area in the <i>Performance in relation to fire</i> section of these Front Sheets.
Requirement:	C2(b)	Resistance to moisture
Comment:		Tests indicate that walls rendered with the products will meet this Requirement. See the relevant tinted areas of the <i>Design Data — General and Weather resistance</i> sections of these Front Sheets.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The products are acceptable materials. See the tinted area of the <i>Durability</i> section of the accompanying Detail Sheets.

continued

• When applied at the finished thickness given in the relevant Detail Sheet, the products are suitable for use on new or existing buildings in areas where the local wind-driven rain index is less than 75 litres per m<sup>2</sup> per spell; where traditional two-coat renders would normally be specified.

These Front Sheets must be read in conjunction with the accompanying Detail Sheets, which provide information specific to the individual renders.

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## 2 The Building (Scotland) Regulations 2004



In the opinion of the BBA, K-Rend External Renders, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Mandatory Standards as listed below.

Regulation:	8	Fitness and durability of materials and workmanship
Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The products can contribute to a construction meeting this Regulation. See the <i>Installation</i> and <i>Durability</i> sections of the accompanying Detail Sheets.
Regulation:	9	Building standards — construction
Standard:	2.6	Spread to neighbouring buildings
Standard:	2.7	Spread on external walls
Comment:		The products have a 'low risk' surface, and are unrestricted by these Standards with reference to clauses 2.6.0 <sup>(1)(2)</sup> 2.6.4 <sup>(1)(2)</sup> , 2.6.5 <sup>(1)</sup> , 2.6.6 <sup>(2)</sup> 2.7.1 <sup>(1)(2)</sup> and 2.A.7 <sup>(1)</sup> , respectively. See the tinted area in the <i>Performance in relation to fire</i> section of these Front Sheets.
Standard:	3.10	Precipitation
Standard:	3.15	Condensation
Comment:		A wall rendered with the products can satisfy the requirements of these Standards 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> , 3.10.5 <sup>(1)(2)</sup> , 3.15.4 <sup>(1)</sup> and 3.15.1 <sup>(1)</sup> , respectively. See the relevant tinted areas of the <i>Design Data — General</i> and <i>Weather resistance</i> sections of these Front Sheets.
Regulation:	12	Building standards — conversions
Comment:		All comments given for this product under Regulation 9, 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).

## 3 The Building Regulations (Northern Ireland) 2000



In the opinion of the BBA, K-Rend External Renders, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations as listed below.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The products are acceptable materials. See the tinted area of the <i>Durability</i> section of the accompanying Detail Sheets.
Regulation:	C4	Resistance to ground moisture and weather
Comment:		Tests indicate that walls rendered with the products can satisfy this Regulation. See the relevant tinted areas of the <i>Design Data — General</i> and <i>Weather resistance</i> sections of these Front Sheets.
Regulation:	E5	External fire spread
Comment:		The products are unrestricted by this Regulation. See the tinted area in the <i>Performance in relation to fire</i> section of these Front Sheets.

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

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

See sections: 6 *Delivery and site handling* (6.1 and 6.5) of these Front Sheets.

## Technical Specification

### 5 Description

5.1 K-Rend External Renders are polymer-modified, self-coloured cementitious renders and are available in the colours and finishes described in the accompanying Detail Sheets.

5.2 K-Rend Standard Base Coat is used as a primary coat, prior to application of the various finish coats.

5.3 A 10 mm thickness of K-Rend Standard Base Coat may be taken to have a weight of between  $15 \text{ kgm}^{-2}$  and  $18.5 \text{ kgm}^{-2}$ .

5.4 The products are manufactured in batch-blending processes. Quality control is exercised over incoming raw materials, during the production processes and on the final products.

### 6 Delivery and site handling

6.1 The products are delivered in sealed 25 kg bags on pallets. Each pallet contains 70 bags and weighs in excess of 1.75 tonne.

6.2 K-Rend External Renders should be stored in dry conditions, off the ground and in a proper store, and used in rotation.

6.3 When stored unopened, the products will have a shelf-life of 12 months from the date of manufacture.

6.4 Each bag bears the manufacturer's mark, batch number and date of production. Each pallet bears the BBA logo bearing the number of this Certificate.

6.5 The products are cement based and contain polymers, mineral aggregates and other additives. They must be handled using routine precautions for Portland cement.

## Design Data

### 7 General



7.1 K-Rend External Renders will improve the weather resistance of a wall and provide a new decorative finish.

7.2 The products are satisfactory for external use on backgrounds of traditional sand/cement render, brickwork, blockwork and concrete substrates prepared and suited to receive a rendered finish. It is essential that walls to receive the products are designed and constructed to prevent moisture penetration and the formation of condensation.

7.3 New constructions to be rendered with the products should be designed and constructed in accordance with the relevant recommendations of BS 5628-3 : 2001 (in particular Clause 5.5 on exclusion of water), BS 5262 : 1991 and

BS EN 13914-1 : 2005. The designer should select a construction appropriate to its location, (paying due attention to design, detailing and workmanship in accordance with BS 8000-10 : 1995) and materials to be used.

7.4 The assessment covers the area of the wall above damp-proof course level. K-Rend External Renders have not been assessed for use:

- on woodwool slabs
- 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.

7.5 The products may be applied over external wall insulation where the complete system has been the subject of a separate BBA assessment.

### 8 Strength and stability

8.1 The products have adequate resistance to impact damage and cracking. Where they may be exposed to severe impact, eg some industrial sites, or applied over existing background cracks, precautions may be required to reduce the risk of damage.

8.2 In common with traditional renders, it is essential that the surface to be rendered provides a sound mechanical key to ensure a satisfactory bond between the substrate and the products.

### 9 Weather resistance



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

9.2 The renders will tend to shed water and reduce considerably the amount of water absorbed by the substrate during rain.

### 10 Performance in relation to fire



The K-Rend External Renders covered by this Certificate are Class 0 or 'low risk' surfaces as defined by the Building Regulations.

### 11 Maintenance and repair

11.1 Conventional rendering techniques and materials may be used to repair damage to the products. The advice of the Certificate holder should be sought for particular installations.

11.2 Damage to the products should be repaired immediately and repairs should be carried out in accordance with the relevant recommendations of BS 5262 : 1991 and BS EN 13914-1 : 2005. Regular maintenance checks should be carried out on architectural details for shedding water and on

external plumbing and fittings to prevent penetration of water into the rendering.

## 12 Durability

12.1 The products may be discoloured by water runs and care should be taken to ensure that normal architectural details for shedding water clear of the building are present and functioning and gutters and downpipes are in good condition (see section 14.6).

12.2 The products may become discoloured with time, the rate depending on the initial colour, and the local environment.

12.3 The products may suffer from algae growth in a similar manner to traditional external rendered finishes.

12.4 In common with traditional renders, the products may be subject to lime bloom. The occurrence of this may be reduced by proper protection during airing and avoiding application in adverse weather conditions. The effect is less noticeable on white or lighter colours.

## Installation

### 13 General

13.1 Application of K-Rend External Renders is to be carried out strictly in accordance with the Certificate holder's instructions and specifications, and the relevant recommendations of BS 5262 : 1991 and BS EN 13914-1 : 2005. The Certificate holder should be consulted for details of suitable applicators.

13.2 The products should not be applied in rain or mist, at temperatures above 35°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 frostbound walls.

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

13.4 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, 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.

13.5 Once the products have been mixed, to the desired consistency additional water should not be added. The products should not be remixed once the material has started to set.

13.6 In common with traditional renders, slumping of the material may occur if the mix is too wet, and will increase the risk of surface cracks developing.

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

### 14 Site survey and preliminary work

14.1 Advice to the designer or rendering contractor is available from the Certificate holder.

14.2 A pre-application survey of the property is carried out to determine the suitability of the substrate to receive the products and whether repairs to the building structure are necessary before application. A specification is prepared by the designer or rendering contractor for each elevation indicating:

- preliminary treatment of the background
- 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.

14.3 Tests should be conducted in accordance with BS 3921 : 1985 to determine the salt content of brick substrates. Results of the tests should be reported to the Certificate holder to enable them to advise on the suitability of the substrate to receive the renders.

14.4 In new brickwork the mortar must conform to the brick manufacturer's recommendations.

14.5 All necessary repairs to the building structure are completed before application.

14.6 It is recommended that external plumbing be removed and, where necessary, alterations made to underground drainage to accommodate its repositioning on the finished face of the product.

14.7 On existing buildings, purpose-made over-sills may be necessary to extend beyond the finished face of the products. 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.

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

14.9 At the top of walls, the products must be protected by an adequate overhang or by adequately sealed purpose-made flashing. The Certificate holder can advise of suitable specifications for a particular installation.

## 15 Preparation of substrate

15.1 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. 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.

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

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

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

15.5 When applying the product to porous or high-suction substrates, particularly in warm weather, the surface should be wetted on the day before the rendering is applied. A further mist spray of clean water may be required prior to application of the render.

15.6 On backgrounds of negligible suction the advice of the Certificate holder should be sought concerning special precautions necessary to provide an adequate key.

15.7 For surfaces that are either very smooth or very irregular, the advice of the Certificate holder should be sought.

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

15.9 Angles may be formed using PVC or stainless steel angle and stop beads, or using chamfered battens. The Certificate holder can advise on suitable materials.

## 16 Mixing

K-Rend Standard Base Coat is added to clean water, at a rate of approximately 4.4 to 5 litres of water to a 25 kg bag, and thoroughly mixed in a suitable mixer for a minimum of five minutes until the correct workability is achieved.

## 17 Application

17.1 Where the K-Rend Standard Base Coat is to be used, the product is applied by hawk and

trowel at approximately 15 to 18 kgm<sup>-2</sup> to give a thickness of between 8 mm and 10 mm. A key is formed by scratching prior to application of the topcoat.

17.2 K-Rend finish coats are applied as described in the appropriate Detail Sheet.

## 18 Curing

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

18.2 The use of polythene sheeting is recommended during 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 rendering. The polythene sheeting must not be in intermittent contact with the product as this will produce a patchy appearance.

18.3 Care must be taken to protect the completed render from drying too rapidly due to exposure to direct sun 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.

## Technical Investigations

The following is a summary of the technical investigations carried out on K-Rend External Renders.

## 19 Tests

19.1 Tests were carried out to determine:

- impact resistance
- flexural and compressive strength of mortars
- water vapour permeability
- initial surface absorption
- effect of accelerated ageing on bond strength
- sieve grading
- ash content
- density.

19.2 An examination was made of test data from independent laboratories relating to fire propagation and surface spread of flame.

## 20 Investigations

20.1 Visits were made to installations in progress to assess the practicability of application of the products.

20.2 Visits were made to existing sites to evaluate the long-term durability of the products in service.

20.3 A survey of known users of the products was conducted.

## Additional Information

The management systems of Kilwaughter Chemical Co Ltd have been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2000 by British Standards Institution Quality Assurance (Certificate No FM 85394).

## Bibliography

BS 3921 : 1985 *Specification for clay bricks*

BS 5262 : 1991 *Code of practice for external renderings*

BS 5628-3 : 2001 *Code of practice for use of masonry — Materials and components, design and workmanship*

BS 8000-10 : 1995 *Workmanship on building sites — Code of practice for plastering and rendering*

BS EN 13914-1 : 2005 *Design, preparation and application of external rendering and internal plastering — External rendering*

BS EN ISO 9001 : 2000 *Quality management systems — Requirements*

## Conditions of Certification

### 21 Conditions

21.1 This Certificate:

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

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

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

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;
- (b) continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine; and

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

21.4 In granting this Certificate, the BBA is not responsible for:

- (a) the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the actual works in which the product is installed, used and maintained, including the nature, design, methods and workmanship of such works.

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



In the opinion of the British Board of Agrément, K-Rend External Renders are fit for their intended use provided they are installed, used and maintained as set out in this Certificate. Certificate No 97/3428 is accordingly awarded to Kilwaughter Chemical Co Ltd.

On behalf of the British Board of Agrément

Date of Second issue: 16th November 2005

Chief Executive

*\*Original Certificate issued 20th November 1997. This revised version includes updated Building Regulations and Standards, new layout and Conditions of Certification and additional text.*

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



Kilwaughter Chemical Co Ltd

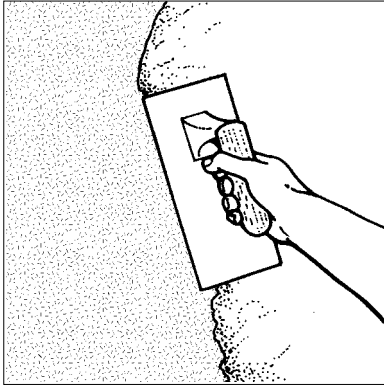
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**DETAIL SHEET 2**

Second issue\*

**K-REND STANDARD DASH RECEIVER**

## Product



• THIS DETAIL SHEET RELATES TO K-REND STANDARD DASH RECEIVER, A SELF-COLOURED RENDER.

• The product is applied over K-Rend Standard Base Coat and used as a background for a subsequent dry dash finish.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Regulations, general information relating to the product, and the Conditions of Certification.

## Technical Specification

### 1 Description

1.1 K-Rend Standard Dash Receiver is a polymer-modified, self-coloured cementitious render equivalent to a Type 11 material to BS 5262 : 1991.

1.2 The product is available in a standard colour range of 24 colours. Other colours are available to special order.


1.3 A 10 mm thickness of K-Rend Standard Dash Receiver may be taken to have a weight of between 15 kgm<sup>-2</sup> and 18.5 kgm<sup>-2</sup>. (This does not include the weight of the base coat previously applied — see section 5.3 of the Front Sheets.)

## Design Data

### 2 Water vapour resistance

The water vapour resistance of 12 mm thicknesses of K-Rend Standard Base Coat and K-Rend Standard Dash Receiver is 0.98 MNsg<sup>-1</sup> and 0.38 MNsg<sup>-1</sup> respectively.

### 3 Durability

 The product, when applied to a suitably prepared, sound substrate will perform satisfactorily for a period in excess of 30 years.

## Installation

### 4 General

K-Rend Standard Dash Receiver is applied over an initial coat of K-Rend Standard Base Coat (see the *Installation* part of the Front Sheets).

### 5 Mixing

The product should be applied to clean water, at a rate of approximately 4.4 to 5 litres of water per 25 kg bag, and thoroughly mixed in a suitable mixer for a minimum of five minutes until correct workability is achieved.

### 6 Application

6.1 A butter coat of K-Rend Standard Dash Receiver is applied using traditional methods at between 10 kgm<sup>-2</sup> and 15 kgm<sup>-2</sup> to give a uniform finished thickness of between 6 mm and 10 mm, depending on the intended size of dashing aggregate.

6.2 While the render is still plastic, washed aggregate is thrown onto the surface to give a uniform coverage.

6.3 The aggregate particles are lightly tamped into the surface using a wooden float and care is taken to ensure that a good bond is achieved.

BS 5262 : 1991 *Code of practice for external renderings*



On behalf of the British Board of Agrément

Date of Second issue: 16th November 2005

Chief Executive

*\*Original Detail Sheet issued 20th November 1997. The amended version includes a change of Detail Sheet layout including new Durability, Water vapour resistance and Mixing sections.*



Kilwaughter Chemical Co Ltd

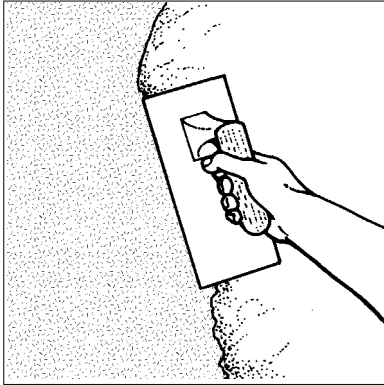
Certificate No 97/3428

**DETAIL SHEET 3**

Second issue\*

**K-REND COM-REND**

## Product



• THIS DETAIL SHEET RELATES TO K-REND COM-REND, A SELF-COLOURED RENDER WITH A TEXTURED FINISH.

• The product is either applied over K-Rend Standard Base Coats or used as a one-coat finish over blockwork.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Regulations, general information relating to the product, and the Conditions of Certification.

## Technical Specification

### 1 Description

1.1 K-Rend Com-Rend is a polymer-modified, self-coloured cementitious render equivalent to a Type 11 material to BS 5262 : 1991.

1.2 The product is available in a standard colour range of 24 colours. Other colours are available to special order.

1.3 A 12 mm thickness of K-Rend Com-Rend may be taken to have a weight of approximately 18.6 kgm<sup>-2</sup>. (This does not include the weight of any base coat previously applied — see section 5.3 of the Front Sheets.)

## Design Data

### 2 Water vapour resistance

The water vapour resistance of 12 mm thicknesses of K-Rend Standard Base Coat and K-Rend Com-Rend is 0.98 MNsg<sup>-1</sup> and 0.57 MNsg<sup>-1</sup> respectively.

### 3 Durability



The product, when applied to a suitably prepared, sound substrate will perform satisfactorily for a period in excess of 30 years.

## Installation

### 4 General

K-Rend Com-Rend is normally applied over an initial coat of K-Rend Standard Base Coat (see the *Installation* part of the Front Sheets). In the case of concrete blockwork only, it is applied directly to the substrate.

### 5 Mixing

The product should be applied to clean water, at a rate of approximately 4.4 to 5 litres of water per 25 kg bag, and thoroughly mixed in a suitable mixer for a minimum of five minutes until correct workability is achieved.

### 6 Application

6.1 The product is applied to a previous base coat using traditional methods at between 20 kgm<sup>-2</sup> and 24 kgm<sup>-2</sup> to give a uniform finished thickness of between 10 mm and 12 mm.

6.2 Alternatively, K-Rend Com-Rend may be applied directly to concrete blockwork using the same techniques in one or two passes, at a total coverage of between 32 kgm<sup>-2</sup> and 34 kgm<sup>-2</sup>. This will give a minimum finished thickness of 16 mm.

6.3 In either case, the render is textured in a separate operation to give the desired finish. This should be done when the mix has set, but not fully hardened, typically after 24 hours. It is essential that all areas are textured at the same stage of readiness to achieve an even shade of finish.

6.4 Following completion of the texturing process, any loose material should be removed using a soft brush and any minor repairs carried out using the excess material.

BS 5262 : 1991 *Code of practice for external renderings*



On behalf of the British Board of Agrément

Date of Second issue: 16th November 2005

Chief Executive

*\*Original Detail Sheet issued 20th November 1997. The amended version includes change of product name, Detail Sheet layout to include new Durability, Water vapour resistance and Mixing sections.*



Kilwaughter Chemical Co Ltd

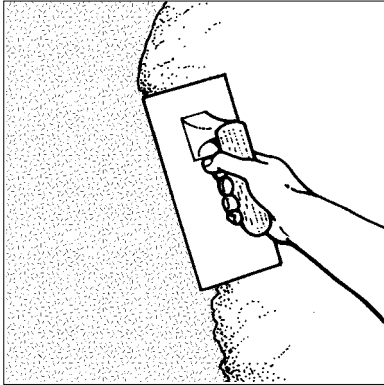
Certificate No 97/3428

**DETAIL SHEET 4**

Second issue\*

**K-REND BRICK-REND**

## Product



• THIS DETAIL SHEET RELATES TO K-REND BRICK-REND, A TWO-COAT RENDER SYSTEM THAT IS DESIGNED TO SIMULATE CONVENTIONAL BRICKWORK.

• The product is applied over K-Rend Standard Base Coat.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Regulations, general information relating to the product, and the Conditions of Certification.

## Technical Specification

### 1 Description

1.1 K-Rend Brick-Rend is a polymer-modified, two-coat, self-coloured cementitious render system equivalent to a Type 11 material to BS 5262 : 1991.

1.2 The first coat of Brick-Rend is mortar coloured and the second, top coat, is brick coloured. Following the application of this second coat, lines are cut to expose the mortar coat, giving the impression of conventional brickwork.


1.3 A 10 mm thickness of Brick-Rend mortar layer may be taken to have a weight of approximately  $15.4 \text{ kgm}^{-2}$  and the subsequent 3 to 5 mm thickness of the brick layer of between  $4.6 \text{ kgm}^{-2}$  and  $7.7 \text{ kgm}^{-2}$ . (This does not include the weight of the base coat previously applied — see section 5.3 of the Front Sheets.)

## Design Data

### 2 Water vapour resistance

The water vapour resistance of 12 mm thickness of K-Rend Standard Base Coat and K-Rend Brick-Rend is  $0.98 \text{ MNsg}^{-1}$  and  $0.47 \text{ MNsg}^{-1}$  respectively.

### 3 Durability

 The product, when applied to a suitably prepared, sound substrate will perform satisfactorily for a period in excess of 30 years.

## Installation

### 4 General

K-Rend Brick-Rend is applied over an initial coat of K-Rend Standard Base Coat (see the *Installation* part of the Front Sheets).

### 5 Mixing

The product should be applied to clean water, at a rate of approximately 4.4 to 5 litres of water per 25 kg bag, and thoroughly mixed in a suitable mixer for a minimum of five minutes until correct workability is achieved.

### 6 Application

6.1 The mortar coat is applied to the previous base coat using traditional methods at between  $15 \text{ kgm}^{-2}$  and  $20 \text{ kgm}^{-2}$  to give a uniform finished thickness of between 8 mm and 10 mm.

6.2 After the mortar layer has started to stiffen, but before it has fully set, the contrasting face layer is applied using the same techniques at between  $6 \text{ kgm}^{-2}$  and  $9 \text{ kgm}^{-2}$  to give a uniform finished thickness of between 3 mm and 5 mm.

6.3 A textured surface finish is immediately applied using a suitable tool such as a brush, comb, spatula, to simulate a brick surface.

6.4 The face layer is then cut through to the base layer using the appropriate tool to give the appearance of recessed mortar coursing. Spirit levels and straight edges should be employed during this operation.

6.5 At the completion of the cutting process, and after allowing further stiffening of the finished render, any loose material is removed using a soft brush, taking care not to damage the surface.

BS 5262 : 1991 *Code of practice for external renderings*



On behalf of the British Board of Agrément

Date of Second issue: 16th November 2005

Chief Executive

*\*Original Detail Sheet issued 20th November 1997. The amended version includes a revised Detail Sheet layout to include, Durability, Water vapour resistance and Mixing sections.*



Kilwaughter Chemical Co Ltd

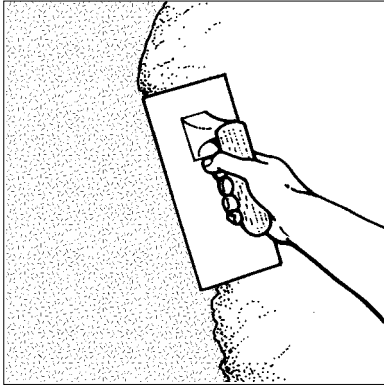
Certificate No 97/3428

**DETAIL SHEET 5**

Second issue\*

**K-REND SILICONE WP**

## Product



- THIS DETAIL SHEET RELATES TO K-REND SILICONE WP, A SELF-COLOURED RENDER WITH A TEXTURED FINISH.
- The product is either applied over K-Rend Standard Base Coats or used as a one-coat finish over blockwork.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Regulations, general information relating to the product, and the Conditions of Certification.

## Technical Specification

### 1 Description


1.1 K-Rend Silicone WP is a polymer-modified, self-coloured cementitious render, containing a silicone water-repellent additive equivalent to a Type 11 material to BS 5262 : 1991.

1.2 The product is available in a standard colour range of 24 colours (other colours are available to special order) and two textures, standard texture (silicone WP) and fine texture (silicone FT).

1.3 A 12 mm thickness of K-Rend Silicone WP may be taken to have a weight of approximately 18.6 kgm<sup>-2</sup> (this does not include the weight of any base coat previously applied — see section 5.3 of the Front Sheets).

## Design Data

### 2 Durability

 The product, when applied to a suitably prepared, sound substrate will perform satisfactorily for a period in excess of 30 years.

## Installation

### 3 General

K-Rend Silicone WP is normally applied over an initial coat of K-Rend Standard Base Coat (see the *Installation* part of the Front Sheets). In the case of concrete blockwork only, it is applied directly to the substrate.

### 4 Mixing

The product should be applied to clean water, at a rate of approximately 4.4 to 5 litres of water per 25 kg bag, and thoroughly mixed in a suitable mixer for a minimum of five minutes until correct workability is achieved.

### 5 Application

5.1 The product is applied to a previous base coat using traditional methods at between 20 kgm<sup>-2</sup> and 24 kgm<sup>-2</sup> to give a uniform finished thickness of between 10 mm and 12 mm.

5.2 Alternatively, K-Rend Silicone WP may be applied directly to concrete blockwork using the same techniques in one or two passes, at a total coverage of between 32 kgm<sup>-2</sup> and 34 kgm<sup>-2</sup>. This will give a minimum finished thickness of 16 mm.

5.3 In either case, the render is textured in a separate operation to give the desired finish. This should be done when the mix has set, but not fully hardened, typically after 24 hours. It is essential that all areas are textured at the same stage of readiness to achieve an even shade of finish.

5.4 Following completion of the texturing process, any loose material should be removed using a soft brush and any minor repairs carried out using the excess material.

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