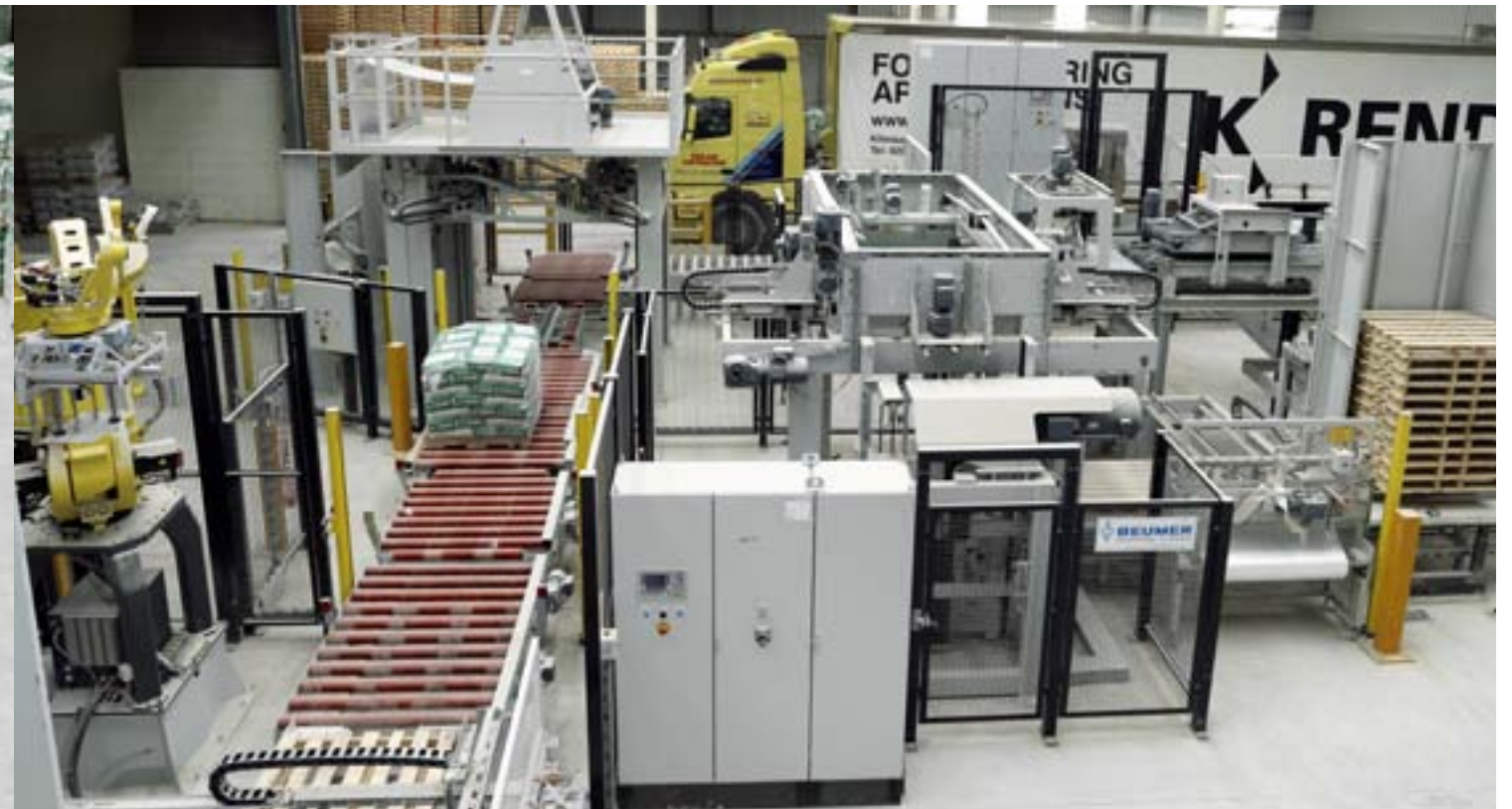


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April 2011





K Rend production facility

Kilwaughter Chemical Co Ltd has been an established mineral and quarry processor since 1939. With 20 years bagged render manufacturing experience producing the market leading K Rend brand, they are committed to excellence, innovation and teamwork in providing you with the highest quality products and technical service support.

The K Rend brand represents excellence in:

HIGH QUALITY, EXTENSIVE PRODUCT RANGE

EXPERT TECHNICAL SUPPORT

INNOVATION

EXPERIENCE

UK & IRELAND DISTRIBUTION

K Rend external renders are designed to give a durable weatherproof coating and a natural finish.



HIGH QUALITY, EXTENSIVE PRODUCT RANGE

Through an uncompromising commitment to quality, excellence, integrity and teamwork, K Rend provide the best tailored products and solutions to satisfy the most demanding requirements. Market leading K Rend is one of the first render manufacturers to have achieved the prestigious Kitemark license to BS EN 998:2003. The Kitemark® is the world's premier symbol of trust, integrity and quality ensuring that vital product safety and performance requirements are met. Kitemark® schemes are voluntary, illustrating commitment to providing customers with the highest standard of quality products and service.

EXPERT TECHNICAL SUPPORT

K Rend offer advice and guidance when identifying the best solution to satisfy your individual needs. By utilising a wealth of technical information from specification detailing to technical product data sheets, K Rend's expertly trained Technical Support Team are able to provide efficient detailed advice, specifications and on-site support.

INNOVATION

Pride is taken in product innovation and developing new products. A continuous development process responds to the ever-changing industry's needs and expectations. The newly installed K Rend manufacturing plant has some of the most advanced production facilities in Europe.

EXPERIENCE

Highly trained K Rend staff are available to share their wealth of industry and product knowledge with you.

UK & IRELAND DISTRIBUTION

An extensive merchant network provides excellent UK and Ireland distribution to meet your application needs, wherever you are. Prompt delivery is assured.

Kilwaughter Chemical Co Ltd take pride in innovative product design, however the impact on the environment is also important. Environmental considerations are an integral part of their business practice. Therefore in developing the K Rend range, care has been taken to ensure that from the earliest stages of product design through to manufacturing, modern technologies have been utilised to help reduce their impact on the environment. Five areas of particular attention are:

RESPONSIBLE MANUFACTURING

RECYCLING

ENERGY EFFICIENCY

MONITORING BIODIVERSITY

ON-SITE RESTORATION

Kilwaughter Chemical Co Ltd's Environment Management System is certified to ISO 14001:2004.



K REND WITH SILICONE TECHNOLOGY FOR WATER RESISTANCE THAT WORKS



WATER REPELLENT
LOW MAINTENANCE
ALLOWS STRUCTURE TO BREATHE
NATURAL LOOKING FINISH
EXTENSIVE COLOUR RANGE

Opposite page: Housing development, Co. Down

Left: House, Dorset

Right: House, Co. Antrim

The K Rend silicone range incorporates silicone water repellents as an integral part of the cement based render system. This silicone technology imparts a high degree of water repellency to the render surface whilst allowing water vapour to pass through the render allowing the substrate to breathe.

The water repellent surface ensures a freshly rendered appearance for a prolonged period. The finish is drier and thus more resistant to algae growth and the natural phenomenon of limebloom.

PRODUCT RANGE

K REND... THE PERFECT FINISH

| K Rend Textured Finish Product overview page 7 | K Rend Dash Receiver Product overview page 9 | K Rend Roughcast Product overview page 10 | K Rend Silicone Thin Coat Product overview page 8 | | K Rend Brick Rend Product overview page 11 | K Rend Base Coat Product overview page 12 | Complementary Products |
|---|--|--|--|--|---|--|-------------------------------------|
| Silicone WP Hand applied | Silicone Dash Hand applied | Silicone Roughcast Hand applied | Silicone TC 15 Hand applied | | Brick Rend Hand applied | Standard UF Base Spray or hand applied | • K Bead (PVC) |
| Silicone FT Hand applied | Overcoating Silicone Dash Spray or hand applied | | Silicone TC 30 Hand applied | | | UF Fibre Base Spray or hand applied | • Tools |
| Silicone Spray E Grade Spray or hand applied | Silicone Spray Dash Spray or hand applied | | Primer TC Brush, roller or spray | | | HP12 Base Spray or hand applied | • Alkali Resistant Reinforcing Mesh |
| Com Rend Spray or hand applied | Standard Dash Hand applied | | | | | HPX Base Spray or hand applied | • R7 Liquid Acrylic |
| | | | | | | HP14 Base Hand applied | • m-tec M300 Spray Machine |

K Rend offer an algae resistant additive which gives enhanced resistance against algae growth.

All additives are contained in the mix in powder form, therefore only clean water and thorough mixing are required. Please ask the Technical Support Team for further advice.



Above: 20 standard colours. Special colours are available on request.

All full colour illustrations shown in this brochure are as accurate as the printing process will allow. It is important that a sample is obtained as we recommend colours be verified against K Rend samples before ordering.



Left: House, Co. Antrim
Top right: House, Ireland
Bottom right: Housing development, Norfolk

SCRAPED TEXTURE

| Silicone WP | Silicone FT | Silicone Spray E Grade | Com Rend |
|---|---|--|---|
| <p>Silicone WP incorporates silicone technology in a through coloured render. The finish provides a broken stone effect.</p> <p>Require: 30kg / sq m approx. nominal 16mm thickness</p> <p>Over Base Coat Require: 18kg / sq m approx. nominal 10mm thickness</p> <p>Kitemark Classifications: Compressive Strength: CS III Capillary Water Absorption Category: W2 Thermal Conductivity: P=50% - 0.57 & P=90% - 0.65</p> | <p>Silicone FT incorporates silicone technology and provides a fine texture finish where the client requires a smoother finish than Silicone WP.</p> <p>Require: 30kg / sq m approx. nominal 16mm thickness</p> <p>Over Base Coat Require: 18kg / sq m approx. nominal 10mm thickness</p> <p>Kitemark Classifications: Compressive Strength: CS III Capillary Water Absorption Category: W2 Thermal Conductivity: P=50% - 0.46 & P=90% - 0.53</p> | <p>Again with silicone additive technology, Silicone Spray products are specifically designed for use with render spray machines. They are ideal for larger projects where the speed of machine application can offer time saving benefits.</p> <p>One coat Require: 26kg / sq m approx. nominal 16mm thickness</p> <p>Kitemark Classifications: Compressive Strength: CS IV Capillary Water Absorption Category: W2 Thermal Conductivity: P=50% - 0.42 & P=90% - 0.48</p> | <p>Com Rend can be hand or spray machine applied. It provides a labour saving application and is cost effective. It provides a popular texture finish without silicone properties.</p> <p>One Coat Require: 30kg / sq m approx. nominal 16mm thickness</p> <p>Over Base Coat Require: 18kg / sq m approx Nominal 10mm thickness</p> <p>Kitemark Classifications: Compressive Strength: CS III Capillary Water Absorption Category: W2 Thermal Conductivity: P=50% - 0.45 & P=90% - 0.52</p> |



Silicone WP



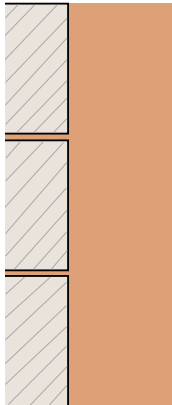
Silicone FT

K Rend scraped texture renders form an attractive range of one coat applications plastered directly on to block work. They can also be used as a finish in conjunction with a K Rend Base Coat.

To achieve the required finish, float to a level surface then scrape the complete surface evenly with a scraping tool when the render is set but not hard, removing 2mm, to produce a uniform texture.

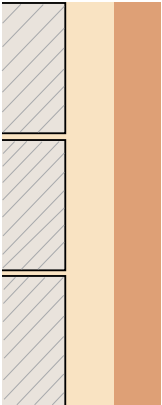
This type of application is suitable for Ashlar cutting.

Textured Finish
1 Coat (2 passes)



Finish coat 16 mm

Textured Finish
2 Coats



Base coat 10 mm
Finish coat 10 mm

Please seek advice from our Technical Support Team for a detailed specification.

THIN COAT

| Silicone TC | Primer TC | |
|---|--|--|
| <p>Silicone TC is a ready to use synthetic resin plaster which is hand applied to provide a low maintenance textured finish. It is available in different textures and a wide variety of colours. Prior to application the substrate should be primed using Primer TC.</p> <p>Require: Primer TC - 0.25 kg / sq m approx.</p> <p>Silicone TC 15 - 2.5 kg / sq m approx. Silicone TC 30 - 5.0 kg / sq m approx.</p> <p>Product Classification (DIN 18558) Coating Material DIN 18558 – P Org 1</p> <p>Composition: Binder system: Silicone resin emulsion and acrylic resin dispersion</p> <p>Aggregate Type: Mineral fillers, calcite & dolomite</p> <p>Admixtures: Defoamers, thickeners, dispersing agents, pigments and preservatives.</p> <p>Thinner: Water sd < 1m W< 0.1 Kg/m2.h0.5</p> | <p>Primer TC is a low odour, ready to use primer which is quick and easy to apply by brush, roller or spray. It is available in a wide range of colours which are co-ordinated to the colour of the Silicone TC topcoat.</p> <p>Primer TC should be used after the application of HP 14 Base and before Silicone TC.</p> <p>Require: Primer TC – 0.25 kg / sq m approx.</p> <p>Composition:</p> <p>Binder system: acrylic resin dispersion</p> <p>Aggregate Type: Mineral fillers, calcite & dolomite</p> <p>Admixtures: Defoamers, thickeners, dispersing agents, pigments and preservatives.</p> <p>Thinner: Water</p> | <p>K Rend is manufactured using natural raw materials. Subtle texture and colour variations may occur during the application process. It is recommended products are selected from actual samples. Large site samples are available which can be applied under normal site conditions to give a representative sample.</p> <p>PLASTERING TEST PANEL</p> <p>For all products it is recommended that a test panel (ideally 2m²) be produced for inspection by the customer (client, architect, etc.). Work should not commence until the customer is satisfied with the texture and general appearance of the product. The test panel should be prepared well in advance of work commencing. Applicators should be familiar with product water requirement, handling characteristics, setting and hardening times. These may vary according to background, temperature and humidity.</p> <p>NOTE: For all products "Require" figures are approximate, take no account of wastage and may vary according to substrate and application technique.</p> |



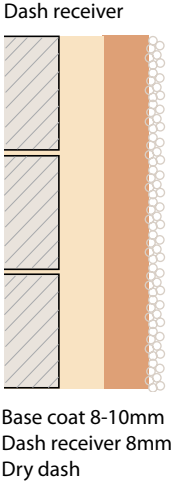
House left: Ballygally

DASH RECEIVER (Dry dash)

| Silicone Dash | Overcoating Silicone Dash | Silicone Spray Dash | Standard Dash |
|--|---|---|--|
| <p>Incorporating silicone technology, Silicone Dash is normally applied over K Rend Base Coats as a background surface for dry dash or roughcast finishes.</p> <p>Require: 10-15kg / sq m approx. nominal 6-10mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS III</p> <p>Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.47 & P=90% - 0.54</p> | <p>Specifically designed for refurbishment. Overcoating Silicone Dash is light and easy to use and gives excellent coverage over existing dry dash finishes. Surfaces to be over coated should be free from contamination (algae, oil and paint) and may require priming with R7 liquid acrylic prior to application.</p> <p>Require: 8-10kg / sq m approx. nominal 8-10mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS II</p> <p>Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.25 & P=90% - 0.28</p> | <p>This silicone enhanced dash receiver is designed to be spray applied by machine to increase the speed of application. Normally applied over a K Rend Base Coat, providing a surface for dry dash finishes.</p> <p>Require: 10-15kg / sq m approx. nominal 6-10mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS III</p> <p>Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.33 & P=90% - 0.37</p> | <p>This original polymer modified render, without the silicone technology, offers good value for dry dashing.</p> <p>Coverage: 1.5kg / mm thick / sq m</p> <p>Require: 10-15kg / sq m approx. nominal 6-10mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS III</p> <p>Capillary Water Absorption Category: W1</p> <p>Thermal Conductivity: P=50% - 0.45 & P=90% - 0.51</p> |



K Rend Dash receivers are used over K Rend Base coats. They are polymer modified and through coloured. These products are designed to have excellent workability and open time properties when used as backgrounds for 4-12mm dry dash or roughcast finishes. The finished thickness is normally determined by the size of the aggregate. Apply a uniform butter coat and throw the aggregate onto the surface while the render is still green.



Please seek advice from our Technical Support Team for a detailed specification.

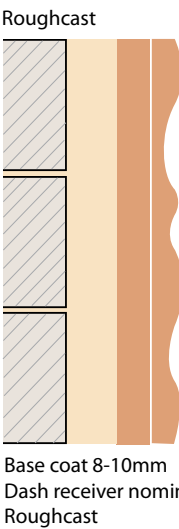
ROUGHCAST (Wet dash)

PRODUCT OVERVIEW
AND COVERAGE

| Silicone Roughcast | | |
|---|--|---|
| <p>Silicone Roughcast incorporates silicone technology to give excellent water resistant qualities. It is applied over a Silicone Dash receiver.</p> <p>Dash receiver require: 9-12kg / sq m approx. nominal 6-8mm thickness</p> <p>Require: 8-13kg / sq m approx.</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS IV</p> <p>Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.85 & P=90% - 0.95</p> | | <p>PLASTERING TEST PANEL</p> <p>For all products it is recommended that a test panel (ideally 2m²) be produced for inspection by the customer (client, architect, etc.). Work should not commence until the customer is satisfied with the texture and general appearance of the product. The test panel should be prepared well in advance of work commencing. Applicators should be familiar with product water requirement, handling characteristics, setting and hardening times. These may vary according to background, temperature and humidity.</p> <p>NOTE: For all products Require figures are approximate, take no account of wastage and may vary according to substrate and application technique.</p> |



K Rend Roughcast may be used as an alternative to dry dash, providing an attractive through coloured render finish. Base Coat is first applied to the block-work, when a receiving coat of Dash receiver is still green, throw Roughcast onto the surface. The Dash receiver and Roughcast must be the same colour.



Opposite page: House, Cork
Top right: House, Co. Antrim

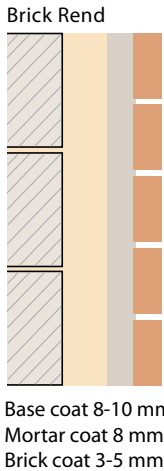
Please seek advice from our Technical Support Team for a detailed specification.

BRICK REND

| Brick Rend | | |
|--|---|---|
| <p>Brick Rend incorporates silicone technology and provides the benefits of flexibility and water resistance. This render is ideal as part of an external wall insulation system.</p> <p>Mortar Layer Require: 10-15kg / sq m approx. nominal 6-8mm thickness</p> <p>Face Layer Require: 5-10kg / sq m approx. nominal 3-5mm thickness</p> | <p>🏠 Kitemark Classifications: Compressive Strength: CS IV Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.46 & P=90% - 0.53</p> | <p>Detailed guidance and assistance including site training and samples can be arranged on request.</p> |



K Rend Brick Rend is an attractive brick effect render, particularly suitable for refurbishment projects where new brick work cannot be used. It is normally applied to K Rend Base Coats in two different coloured coats, wet on wet. The top coat is then cut through to expose the mortar layer. The mortar joints create a brick effect finish.



Please seek advice from our Technical Support Team for a detailed specification.

BASE COAT

| Standard UF Base | UF Fibre Base | HP12 Base | HPX Base |
|--|--|--|--|
| <p>A high quality general purpose sprayable base coat with excellent workability qualities, designed to be used over block work as a primary coat for K Rend finishes and is ideal as the background for thin coat acrylic finishes.</p> <p>Coverage: 1.8kg / mm thick / sq m</p> <p>Require: 14-18kg / sq m approx. nominal 8-10mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS III Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.41 & P=90% - 0.47</p> | <p>Has all the qualities of Standard UF Base, but with increased impact resistance and tensile strength.</p> <p>Coverage: 1.8kg / mm thick / sq m</p> <p>Require: 14-18kg / sq m approx. nominal 8-10mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS III Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.35 & P=90% - 0.40</p> | <p>HP12 Base uses 'High Polymer' technology for a cost effective, enhanced performance on difficult substrates. It is ideal as a stipple coat or for dense backgrounds and has increased water resistance and adhesion. Incorporation of Alkali Resistant Reinforcing Mesh may be required.</p> <p>Coverage: 1.8kg / mm thick / sq m</p> <p>Require: 8-11kg / sq m approx. nominal 4-6mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS IV Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.73 & P=90% - 0.82</p> | <p>Ultra high performance render incorporating high polymer technology and fibres. Used on unusual substrates requiring greater flexibility and adhesion, often incorporating an Alkali Resistant Reinforcing Mesh.</p> <p>Coverage: 1.5kg / mm thick / sq m</p> <p>Require: 6-9kg / sq m approx. nominal 4-6mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS III Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.35 & P=90% - 0.40</p> |

| HP14 Base |
|--|
| <p>HP 14 Base uses "High Polymer" technology for a cost effective, enhanced performance onto a wide variety of substrates. It is designed as the ideal background for thin coat synthetic resin plasters such as Silicone TC.</p> <p>Coverage: 1.8kg / mm thick / sq m</p> <p>Require: 8-11kg / sq m approx. nominal 4-6mm thickness</p> <p>🏠 Kitemark Classifications: Compressive Strength: CS IV Capillary Water Absorption Category: W2</p> <p>Thermal Conductivity: P=50% - 0.41 & P=90% - 0.82</p> |

All K Rend Base Coats can be hand or spray applied.

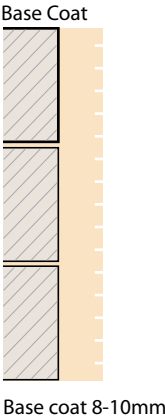


Above: House, Ballygally



K Rend Base (Scratch) Coats are polymer modified and cement based to ensure flexibility and strength. Scratch coats require only the addition of water and five minutes mixing time. Normally applied in one coat as a backing for K Rend finishes. Rule off to a flat finish and scratch lightly to provide a key for the next coat.

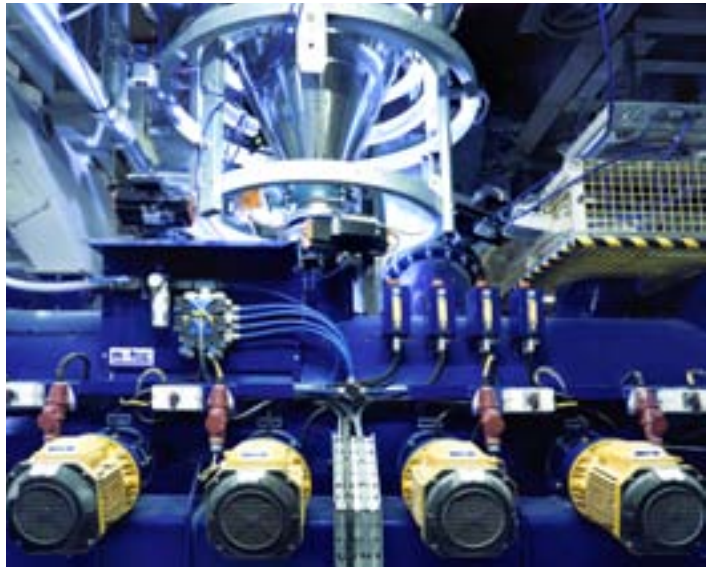
For unusual substrates, seek technical advice.



GENERAL INSTRUCTIONS
DESIGN & MAINTENANCE

| RESEARCH | DESIGN & SPECIFICATION | | ARCHITECT INFORMATION |
|---|---|---|--|
| <p>Research and development is a continuous process that provides new answers to the changing needs and expectations of customers. Driven by market requirements and the emerging opportunities presented through the development of new technology, K Rend are committed to excellence in providing new innovative products.</p> <p>A team of Chemists and Engineers conduct extensive prototype testing on all new product designs whilst continuously assessing potential improvements to existing products by utilising innovative technologies. This keeps K Rend up to date with all new requirements including product performance, legislation and building design.</p> | <p>Technical advice & specifications are available on: Tel: 028 2826 0766</p> <p>K Rend external renders are designed to give a durable weatherproof coating and a natural finish. A low maintenance finish will add value to any building. To maximise the benefits of K Rend, the following points may be considered in designing a render finish. Water should be prevented from continually running down facades. A generous overhang or eave should be designed together with sufficient drips at all sills and copings.</p> <p>Angles Angles may be formed using K Bead PVC angle and stop beads.</p> <p>Expansion Joints Render expansion joints must follow structural movement breaks. For other expansion joints refer to BS EN 13914:2005.</p> <p>A detailed instruction leaflet and health and safety information are enclosed with every pallet of render.</p> | <p>Some construction materials may be susceptible to alkali attack; fittings and surfaces adjacent that are likely to be damaged during rendering should be protected.</p> <p>PRODUCT TRAINING K Rend offer Product Training at the manufacturing facility, Larne, N. Ireland. The course is open to anyone. It is a one day course, 75% of which is hands-on based training and 25% is classroom technical learning. On completion you receive K Rend Certificate, Samples & Literature Pack, Hi-vis Vest, Pen & Van Livery. Also the opportunity to become a 'Recommended K Rend Applicator'. Airport transfers are free of charge. Breakfast & lunch are provided. Courses run every second Tuesday throughout the year.</p> <p>Contact: E: ProductTraining@Kilwaughter.com T: 028 2826 0766 for available dates.</p> | <p>Specification K Rend is a member of the Royal Institute of British Architects's 'National Building Specification Plus' system. Please visit www.thenbs.com to create a specification. Alternatively visit the Specification Writer on our website: www.K-Rend.co.uk</p> <p>Continuous Professional Development (CPD) K Rend offer Architects RIBA CPD approved training with a seminar entitled 'New British Standards for External Render'. This seminar counts towards Architects RIBA CPD annual training requirement. Please contact your Sales representative to arrange a seminar at your practice.</p> <p>Tel: 028 2826 0766</p> |

Below: K Rend production facility



| BUILDING | | MAINTENANCE | K RANGE |
|---|---|---|--|
| <p>Packaging K Rend bagged renders are normally packed in 25Kg sacks, 40 sacks per tonne, loaded 70 per 1.75 tonne pallet.</p> <p>K Rend Thin coat renders are normally packed in 25kg tubs, 40 tubs per tonne, loaded 27 per 675 kg pallet.</p> <p>All render sacks and tubs must be protected from frost and direct sunlight on site. Shelf life is approximately 1 year if stored in dry conditions, protected from frost and sunlight, in original unopened packaging, from date of manufacture.</p> <p>It is important to note that all K Rend renders are non-returnable.</p> <p>Site conditions Temperature range 5 °C - 35 °C K Rend renders must not be applied to frozen or thawing supports. If the coating must be applied in adverse weather conditions, it is essential to protect both the working area and finish before and after application.</p> <p>Areas between day work beads should be applied without a break.</p> <p>All areas of the building should be protected from rainwater for at least 24 hours after application of K Rend.</p> | <p>Do not allow down-pipes, sills and scaffolding to throw water on to setting render.</p> <p>Ensure that all copings and sills have sufficient drips to prevent any runs down the facade. This includes a drip cut under all mortar joints between copings.</p> <p>To prevent the appearance of lime-bloom, do not render in cold, damp weather.</p> <p>K Rend render, in common with all finishes, should be protected from all potential on site damage.</p> <p>Scraped texture - to achieve a uniform colour, all areas must be scraped at the same stage of readiness or hardness.</p> <p>Roughcast finish - do not go back over cured areas to fill in misses, as this can lead to inconsistency of colour.</p> | <p>Where general staining occurs, a warm power wash with a suitable detergent can be used to clean up the K Rend finish.</p> <p>Care must be taken to adjust the pressure of the power washer to ensure that the render surface is not damaged during the procedure (this is not suitable for dry dash finishes).</p> <p>An annual coat of fungicidal wash can prevent algae from growing on weather prevailing facades, which can be prone to algae by remaining wet over long periods. Please ask the Technical Support Team for further advice.</p> <p>K Rend is compatible with a range of anti-graffiti treatments. Please visit the Anti-graffiti Association website: www.the.aga.org.uk/ or call our Technical Support Team for advice.</p> <p>If a change of colour is required at a later date, K Rend is a suitable substrate for a good quality masonry paint.</p> | <p>Also available:</p> <ul style="list-style-type: none">• K Mix Construction Mortars• K Lime Natural Hydraulic Lime Mortars• K Post• K Rend Tyrolean• K Rend Traditional White Mortar <p>Complementary Products:</p> <ul style="list-style-type: none">• K Bead (PVC)• Tools• Alkali Resistant Reinforcing Mesh• R7 Liquid Acrylic• m-tec M300 Spray Machine <p>Please call our Technical Support Team for further information.</p> <p>In line with our policy of continuous product development, we reserve the right to change technical data without notice.</p> |

Below: Kilwaughter Quarry, the on-site source of aggregate and sand





www.K-Rend.co.uk

Kilwaughter Chemical Co Ltd also manufactures and supplies the following items:

K LIME Natural Hydraulic Lime Mortar

K MIX Construction Mortars

K BEAD Durable uPVC Beads

K POST Rapid Set Post Concrete

K LANDSCAPES Construction & Landscaping

K DASH Butter Coat for Dry Dash



Kilwaughter Chemical Co Ltd

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Tel: 028 2826 0766 Fax: 028 2826 0136
Email: Sales@K-Rend.co.uk
www.K-Rend.co.uk

For ROI Sales

Classis, Ovens, Co. Cork, Ireland
Tel: 021 4872733 Fax: 021 4871705
Email: Sales@K-Rend.co.uk
www.K-Rend.co.uk