

Specification

Ref: KR25 – 30

Summary: Silicone K1 onto Existing Unpainted Sand and Cement Render – R7 & HP12

JOB DESCRIPTION

SPECIFICATION CLAUSE: M20 - PLASTERED / RENDERED / ROUGHCAST COATINGS

To be read with Preliminaries/General Conditions.

160 Proprietary Cement Gauged Render

- **Substrate:** Existing Unpainted Sand and Cement Render
- **Manufacturer:** Kilwaughter Minerals Ltd.
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www.K-Rend.co.uk
- **Primer:** K Rend R7 Acrylic
Diluted with water 1:4, applied by brush or roller and the K Rend HP12 Base applied whilst the primer is still wet or tacky.
- **Undercoat:** K Rend HP12 Base

Incorporate Glassfibre meshcloth to stress areas or where existing hairline cracks are found in the render.

Rule to line and level Lightly scratch and allow to set.

Thickness: 4-6mm
- **Final Coat:** K Rend Silicone K1

Thickness: 12mm

Rule to line and level and allow to semi set, prior to scraping.

Colour: Selected by Specifier

Finish: Scraped, textured
- **Total Thickness:** 16mm (finished)

K Rend R7 Acrylic primer, K Rend HP 12 Base and K Rend Silicone K1 should be applied strictly in accordance with the manufacturer's instructions and specifications and the relevant sections of BS EN 13914-1:2016. Further guidance is available in the British Board of Agrément, Certificate No. 97/3428 and the National Standards Authority of Ireland (NSAI), Agrément Certificate No. 06/0248.

IF THESE INSTRUCTIONS ARE NOT FOLLOWED CLOSELY, A SATISFACTORY FINISH MAY NOT BE ACHIEVED AND KILWAUGHTER MINERALS LTD WILL ACCEPT NO RESPONSIBILITY.

This specification is valid for 6 months from date of issue. Thereafter details should be re-checked with Kilwaughter Minerals Ltd.

DESIGN CONSIDERATIONS

New construction to be rendered should be designed and constructed in accordance with the relevant recommendations of BS EN 13914-1:2016.

Render should only be applied to mature, stable surfaces. New walls to be rendered should be left as long as possible to minimise substrate movement (typically 28 days).

Increased thicknesses may be required in exposed or coastal locations, full details are available from Kilwaughter Minerals Ltd. Window sashes should open freely and be finished with good aesthetic margins to all frames. Where existing return reveal areas are evaluated tight with additional coats of render to follow. Existing render should be removed at isolated return reveals only.

In order to achieve the best finish K Bead PVC Angle, Stop, Bellcast, Drip and Expansion beads should be used. The K Bead range is available with all K Rend products from Kilwaughter Minerals Ltd. Movement beads should be installed at a maximum of every 7 x 7 metre perimeters. Advice about movement joints to be detailed by the site engineer.

Render must not be applied to horizontal or sloping surfaces. Rendering should not be continued over movement joints, dampproof courses, weep holes or air vents.

An adequate flashing must always be provided to prevent water penetrating behind the render.

Suitably designed overhangs and flashings should be provided to prevent water washing onto the façade. A generous overhang or eave should be designed, and all sills and copings should have sufficient drips, including mortar joints at coping. Gutters and down-pipes must also be designed to keep water off the façade, temporary guttering and down-pipes may be required to help keep the surface as dry as possible.

In order to minimise damage to the rendering, consideration should be given to installing fixings for rainwater, soil and vent pipes before rendering commences. The pipes themselves should be fitted after rendering is completed. Fixings should be made of stainless steel to minimise the risk of corrosion.

Independent scaffolding should be used to minimise scaffold ties and avoid the need to repair plug holes. Sufficient height and clearance should be allowed to enable satisfactory completion of the rendered finish.

Some construction materials may be susceptible to alkali attack. Fittings and adjacent surfaces that are likely to be damaged during rendering should be protected.

A plinth is recommended at DPC level to provide a splashback and minimise colour issues at ground level.

It is advised that a project visit is carried out at least one week in advance of render application start date, evaluating any preparation issues.

BACKGROUND AND PREPARATION

Existing Unpainted Sand and Cement Render. Ensure that the existing render is well enough bonded and strong enough to carry the weight of the new render system to be applied. Hammer test and remove any loose material and dub out as necessary.

The background should be assessed to ensure that it is suitable to receive the K Rend render system. It should also be checked for line and level to decide if the render can be applied in a uniform thickness or if dubbing out is required. Following suitable preparation of the background K Rend HP12 should be used for any dubbing out requirement.

All necessary repairs must be carried out before application. All damage to substrate from salt attack, corrosion or salts (including efflorescence) must be carefully prepared and any salts on the masonry surface removed. Damaged blocks must be replaced and any holes or insufficiently filled joints repaired.

Any structural cracking in the background should be brought to the attention of a structural engineer and stabilised prior to rendering.

It is recommended that K Rend alkali resistant reinforcing mesh is used in areas likely to suffer from stress cracking. This can be done by applying K Rend HPX Base, bedding mesh into it whilst it is still wet and leaving the HPX Base with a light scratch prior to setting. K Rend alkali resistant reinforcing mesh is available with all K Rend products from Kilwaughter Minerals Ltd.

The surface must be clean and free from any loose or friable material including paint, oil, soot, lichens and dust. If there is any algae present it should be treated with a proprietary fungicidal wash or surface biocide (i.e. Algae Clean) and then pressure washed to remove any residue.

The product should not be applied to frost bound walls.

Apply suction control as necessary; it may be necessary to damp down walls prior to applying the product to control suction, particularly in summer months. Rendering should not be applied to walls which have been subject to rain over several hours.

Areas with poor key, such as smooth concrete lintels, should be given a preparatory stipple coat of HP12 Base.

PRODUCT

K Rend R7 Acrylic primer (a modified Styrene-Acrylic emulsion used to improve the adhesion of K-Rend renders to “difficult” substrates).

K Rend HP12 Base (a high polymer cost effective enhanced performance basecoat).

K Rend Silicone K1 (easy to use, silicone enhanced, water repellent, through coloured, fine textured render).

Colour as selected by the Specifier.

Samples are provided on request for colour indication only; it is always recommended that a physical sample of the colour & product is checked before the product is used.

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 appearance of the product. Applicators should be familiar with product water requirement, handling characteristics, setting and hardening times. These may vary according to background, temperature and humidity. The test panel should be prepared well in advance of work commencing.

K Rend products are manufactured from natural products and slight shade variations may occur.

The product is delivered in sealed 25kg bags on pallets. Each complete pallet contains 40 bags and weighs 1.0 tonne.

Storage

Product sacks, even when protected by hoods, are only shower proof, and should be further protected to prevent damp causing caking of the product. The shelf life is 1 year from date of manufacture if stored off the ground in dry conditions, protected from frost and sunlight, in original unopened packaging.

It is important to note that all K Rend products are non-returnable.

Health and Safety

A Material Safety Data Sheet is available from the manufacturer and should be read prior to commencement of any rendering.

SUPPLIER:

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APPLICATION METHOD

K Rend HP 12 Base and K Rend Silicone K1 should be applied strictly in accordance with the manufacturer's instructions and specifications and the relevant sections of BS EN 13914-1:2016. Further guidance is available in the British Board of Agrément, Certificate No. 97/3428 and the National Standards Authority of Ireland (NSAI), Agrément Certificate No. 06/0248.

Dubbing Out

All dubbing out coats necessary to correct any surface alignment should be carried out as a first step, prior to beading.

Beading

All beading should be fixed to the substrate and aligned correctly prior to application of render basecoats.

All beadings should be adhesively pasted, encapsulating the bead web using HP12, for stability.

- Beads Required**
- K Bead 11mm Angle beads, elevated & set to minimum depth 16mm.
 - K Bead 11mm Movements beads, elevated & set to minimum depth 16mm.
 - K Bead 15m Bellcast Beads located DPC, elevated & set 18-20mm to front edge.

Mixing

K Rend R7 Acrylic primer dilute 1 part K Rend R7 Acrylic with 4 parts water prior to use.

K Rend HP12 Base and K Rend Silicone K1 require approximately 5-6 litres of clean water per 25kg sack. Consistency in proportions is essential to ensure an even finish. Mix thoroughly; it takes at least 10 minutes to dissolve the powder additives. 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.

Application

K Rend R7 Acrylic primer apply by brush or roller and the K Rend HP12 Base applied whilst the primer is still wet or tacky.

K Rend HP12 Base, apply either by machine or by hawk and trowel, ruled to line and level. Lightly scratch and allow to set.

Thickness: 4-6mm

K Rend Silicone K1, apply by hawk and trowel ruled to line and level and allow to set.

Thickness Applied: 2 passes x 6mm @ 12mm

Total thickness: 16mm

If possible entire sections or elevations should be coated in a single operation using the same batch to avoid joint marks in the finish. When straightening, hollows should be filled out immediately before a skin is formed. Care should be taken to avoid small hollows, which can make it difficult to achieve a good finish. Small areas such as quoins, reveals and bands can be left with a plastic float finish. Do not polish.

Finishing

Scraping

Scraping should take place when the render has semi set but not fully hardened. The exact timing varies according to weather conditions and can be anything from 4 to 36 hours after application.

At the correct time, the aggregate scrapes easily from the wall and does not stick to the scraping tool. Scraping should always be done lightly, and in a tight circular motion to produce a uniform finish. Remove only 1-2mm from the complete surface. All areas must be scraped at the same stage of readiness. A uniform approach is essential to achieve an even finish. The scraped surface should then be checked to ensure that all miss-marks (isolated areas which have not been full scraped) are identified and corrected at this time.

Brushing

Immediately after scraping, use a soft brush to remove loose material, brushing in both horizontal and vertical directions. This will highlight any unscraped areas, which must then be scraped immediately to avoid colour variation. If scrape patterns or marks are observed, they should be softened by further gentle scraping or brushing. Small blemishes should be repaired at this stage, using material freshly scraped from the wall.

Finish: Scraped, textured.

OTHER CONSIDERATIONS

Site Conditions

K Rend products have a working temperature range of 5°C to 35°C. The product should not be applied in the rain or mist, at temperatures above 35°C or below 5°C or if exposure to frost is likely to occur during curing.

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 quickly. In cold weather, if frost is forecast, work should stop in time to allow the material to set sufficiently to prevent frost damage. Curing times will vary accordingly to wind, temperature and humidity.

Cleaning of Tools

Clean tools and equipment with water immediately after use. Residue from cementitious products must not enter the drainage system.

Curing

All areas should be protected from rain, mist and cold for at least 48 hours after the application of the product. Care should be taken to protect the completed render from drying out too rapidly due to direct sun or drying wind.

Repairs

Damage to the products should be repaired immediately and carried out in accordance with the relevant section of BS EN 13914:2016. Advice from the manufacturer should be sought. K Rend Silicone K1, in common with all finishes, should be protected from all potential site damage.

Algae

The product contains an algae resistant additive which gives enhanced resistance to algae growth. However local conditions may still allow algae growth on the render surface. An annual coat of fungicidal wash can prevent algae from growing on facades which can be prone to algae by remaining wet over prolonged periods.

Lime Bloom

The product may be subject to lime bloom, however this may be reduced by proper protection during curing and avoiding application in adverse weather conditions. To avoid the appearance of lime bloom do not render in cold, damp weather. Generally, a 2-day window of good weather is required to minimise the occurrence of lime bloom.

Do not permit down-pipes, sills, copings and scaffold boards to throw water on the setting render. Do not allow washings from quoins, sills etc. to run on to the setting render.

Maintenance

Regular maintenance checks should be carried out. Where general staining occurs, a warm power wash with suitable detergent can be used to clean up the finish. Care must be taken to adjust the pressure of the power washer to ensure that the render surface is not damaged during the procedure

Additional Recommendation

For additional surface protection K Pro sealer is recommended as added protection to the façade and to reduce maintenance cycles.

Section for QS

This specification is valid for 6 months from date of issue. Thereafter details should be verified with Kilwaughter Minerals Ltd.

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In line with our policy of continuous improvement, we reserve the right to change technical data without notice.



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