Specification

Ref: KR02-03

Summary: Silicone FT onto dense concrete – two coat

JOB DESCRIPTION

SPECIFICATION CLAUSE: M20 - PLASTERED / RENDERED / ROUGHCAST COATINGS

To be read with Preliminaries/General Conditions.

160 Proprietary cement gauged render

- **Substrate:** Dense concrete.
- **Manufacturer:** Kilwaughter Chemical Co. Ltd.

  9 Starbog Rd, Larne, Co. Antrim, N. Ireland, BT40 2TJ

  Tel: 028 2826 0766 Fax: 028 2826 0136

  www.K-Rend.co.uk
- **Undercoat:** K Rend HP12 Base.

  Thickness: 6 mm. Rule to line and level. Lightly scratch and allow to set.
- **Final coat:** K Rend Silicone FT

  Thickness: 12 mm applied by hand. Rule to line and level and allow to set.

  Colour: Selected by Specifier**.**

  Finish: Scraped, fine textured.
- **Total thickness:** 16 mm (finished) .

K Rend HP12 Base and K Rend Silicone FT should be applied strictly in accordance with the manufacturer's instructions and specifications and the relevant sections of BS 5262:1991 and BS EN 13914-1:2005. 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 CHEMICAL CO LTD WILL ACCEPT NO RESPONSIBILITY.

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

DESIGN CONSIDERATIONS

New construction to be rendered should be designed and constructed in accordance with the relevant recommendations of BS 5628:2003, BS5262:1991 and BS EN 13914-1:2005.

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.

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 K Rend products from Kilwaughter Chemical Co. Ltd.

Render must not be applied to horizontal or sloping surfaces. Rendering should not be continued over movement joints, damp-proof 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.

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 avoid the need to repair good 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.

BACKGROUND AND PREPARATION

Dense concrete.

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 Standard UF Base 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 must be carefully prepared. Damaged areas must be replaced and any holes or insufficiently filled joints repaired.

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 HP12 Base, bedding mesh into it while it is still wet and leaving the HP12 Base with a light scratch prior to setting. K Rend alkali resistant reinforcing mesh is available with all K Rend products from Kilwaughter Chemical Co. 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. Rendering should not be applied to walls which have been subject to rain over several hours.

PRODUCT

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

K Rend Silicone FT (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 recommended that a test panel (ideally 2 m^2) 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 25 kg bags on pallets. Each complete pallet contains 70 bags and weighs 1.75 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 : **Kilwaughter Chemical Co. Ltd.**

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APPLICATION METHOD

K Rend HP12 Base and K Rend Silicone FT should be applied strictly in accordance with the manufacturer's instructions and specifications and the relevant sections of BS 5262:1991 and BS EN 13914-1:2005. 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.

Mixing

K Rend HP12 Base and K Rend Silicone FT require approximately 4-5 litres of clean water per 25 kg 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 HP12 Base, apply either by machine or by hawk and trowel, rule to line and level. Lightly scratch and allow to set.

Thickness: 6 mm.

K Rend Silicone FT, apply by hawk and trowel, rule to line and level and allow to set.

Thickness: 12 mm.

Total thickness: 18 mm.

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 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 1-2 mm 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.

Brushing

Immediately after scraping, use a soft brush to remove loose material. 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, fine textured.

Total finish thickness: 16 mm.

Ashlar cutting (optional)

Having scraped the surface level, the ashlar effect is achieved by cutting into the surface with an ashlar cutter to form grooves. Leave a minimum 10 mm of coloured K Rend between the recessed ashlar cut and substrate. Additional render thickness should have been applied to accommodate the depth of the ashlar cut (typically 20-25 mm required in areas for ashlar cutting). When forming cuts take care to avoid damaging the arrises by working away from the external corner.

All cuts must be the same width and depth and set out uniformly as required.

OTHER CONSIDERATIONS

Site conditions

K Rend products have a working temperature range of 5ºC to 35ºC. The product should not be applied in the rain or mist, at temperatures above 35ºC or below 5ºC 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 5262:1991 and BS EN 13914:2005. Advice from the manufacturer should be sought. K Rend Silicone FT, 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.

Limebloom

The product may be subject to limebloom, however this may be reduced by proper protection during curing and avoiding application in adverse weather conditions. To avoid the appearance of limebloom do not render in cold, damp weather.

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.

This specification is valid for 6 months from date of issue. Thereafter details should be verified with Kilwaughter Chemical Co. Ltd. (Version 10/11)

Certificate No: FM85394

BSEN998-1 &BSEN-2 Licence No.514639

Certificate No: 06/0248

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