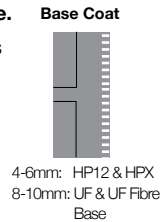


K REND BASE COATS

Standard UF Base, UF Fibre Base, HP12, HP14 & HPX Base.

Primary coat, where required, should be applied to substrates as preparation for subsequent coats. Thickness should be as per product specification. It is important to take special care to straighten with a darby / straight edge to ensure that the next coat is applied to uniform level. Form a light key only. Allow 24 hours curing time before further application, unless advised otherwise. For info on unusual substrates, seek technical advice.

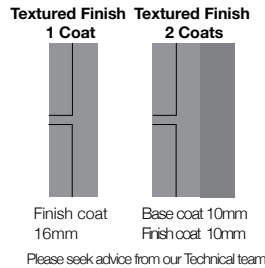


K REND SCRAPED TEXTURE

Silicone FT, Silicone Spray E Grade, Silicone K1, K1 Spray & LW1

ONE COAT / FINISH COAT

One coat is applied directly onto block work (please seek advice from our Technical team) and must be finished to a minimum of 16mm thick to avoid 'ghosting'. The material should be applied 18mm thick in 2 passes; the first pass 6-8mm and the second pass 12 - 14mm. (See also under Spray Application). After setting, 2mm is scraped off for a 16mm finish. If the material is being used in a two coat application the Finish Coat is applied over a K Rend Base Coat to line level, using a darby or straight edge, to a minimum thickness of 10 - 12mm. 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.



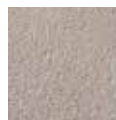
K REND LW1

K Rend LW1 is applied directly onto polystyrene insulation, minimum finished thickness 12mm. The material should be applied 14mm thick, in 2 passes; the first pass approx. 6mm with K Rend Alkali Resistant Reinforcing Mesh embedded into the first pass whilst it is still soft. The second pass of approx. 8 mm is then applied. The product can be used to provide a scraped texture, a dry dash or a spray roughcast finish.

Scraped Texture – see sections below entitled “SCRAPING”, “BRUSH DOWN” AND “ASHLAR CUTTING TO TEXTURED FINISH”.

SCRAPING

Scraping should take place when the render has set but not fully hardened. The exact timing varies according to weather conditions & can be anything from 4 to 36 hours after application. Typically, in moderate conditions, the render should be scraped the day after application. The render is ready for scraping when a thumb impression cannot be made but it can be marked with a thumb nail. 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, & 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, as early scraping will result in darker shades and late scraping in lighter shades. A uniform approach is essential to achieve an even finish.



BRUSH DOWN

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.

ASHLAR CUTTING TO TEXTURED FINISH

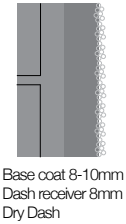
Having scraped the surface level, the ashlar effect is achieved by cutting into the surface with an ashlar cutter to form grooves. Leave a minimum 10mm of coloured K Rend between the recessed ashlar cut and substrate. Additional render thickness should have been applied to accommodate the depth of the ashlar cut. (Typically 20 - 25mm 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.

K REND DASH RECEIVER

Silicone Dash, Overcoating Silicone Dash, Silicone Spray Dash & Standard Dash.

Dash Receiver is applied to a K Rend Base Coat. Apply a butter coat of render to a uniform thickness depending on the aggregate size (typically 8mm). While the render is still plastic, throw washed aggregate onto the surface to give a uniform dense coverage. Immediately tamp the aggregate particles lightly into the butter coat with a plastic float, ensuring a good bond is obtained.

Dash Receiver



K REND ROUGHCAST

Silicone Roughcast

First Coat - BASE COAT See previous.

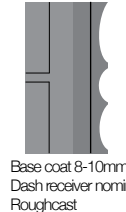
Second Coat - DASH RECEIVER

Apply a single coat nominal 6mm thick. Allow to firm but not set.

Dashing Coat SILICONE ROUGHCAST

To ensure that regularity of colour is achieved always mix a sufficient quantity of Roughcast for the area to be rendered into a bath or box. Do not add any further water to the mix in the gauging box on the scaffold. Throw the Roughcast on to the surface of the Dash Receiver while the Dash Receiver is still green, using a dashing spoon. Do not go over semi-cured areas to fill in misses, as this can lead to inconsistency of colour. Protect from water during set.

Roughcast



SPRAY APPLICATION

The following K Rend products can be spray machine applied;

Silicone K1, Silicone Spray E Grade, K1 Spray, Overcoating Silicone Dash, Silicone Spray Dash, Silicone Tyrolean, Standard UF Base, UF Fibre Base, HP12 & HPX Base.

A technical advisory service is also available.

K REND TYROLEAN

Silicone Tyrolean

First Coat - BASE COAT See previous.

Second Coat - SILICONE TYROLEAN

Apply by using a hand-operated Tyrolean machine or an open hopper spray machine. The honeycomb texture is obtained by building up several passes applied in sequential light sprays, wet on wet, from a Tyrolean machine. Each pass should be from a different direction (45° from right etc). Take care to avoid merging and patchiness in the texture by leaving sufficient time between passes. A minimum coating thickness of 4mm, with 6kg per square metre with a thickness of 1.0mm per pass.

K REND BRICK REND

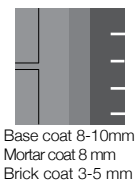
Silicone Brick Rend

First coat - BASE COAT See previous.

Second coat BRICK MORTAR COAT

The mortar layer is applied to a K Rend Base Coat, 8 - 10mm thick to line and level. Do not overwork.

Final Coat BRICK FACE COAT



K REND MINERAL TC

**First Coat
Preparation Coat
Final Coat**

**K Rend Basecoat
K Rend Primer TC
K Rend Mineral TC**



Allow freshly applied render basecoats a minimum of 14 days before work commences. Prime walls using K Rend Primer TC, colour co-ordinated to topcoat and allow 24 hours drying time for primer before applying topcoat.

Apply the product to the thickness of the largest grain size using a stainless steel float; allow to take up slightly. The surface is then rubbed up in a circular motion using a plastic float to create the texture.

APPLICATION INSTRUCTIONS



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

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. Shelf life is approximately one year if stored in dry conditions in original packaging. It is important to note that all K Rend products are non-returnable.

COLOUR

50mm samples are provided on request for colour indication only. A site sample panel is recommended, to ensure that the specifier is satisfied with the product colour and texture. K Rend materials are manufactured from natural products, and slight shade variations may occur. All rendered areas must be scraped at the same stage of readiness, as early scraping will result in darker shades and late scraping in lighter shades. A uniform approach is essential to achieve a good finish.

PLASTERING TEST PANEL

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.

DESIGN CONSIDERATIONS

For rendering, suitably designed overhangs and flashings should be provided to prevent water washing onto the render and causing staining. At ground level it is recommended that the rendering should not bridge the DPC to form a capillary path for rising damp. Sills and copings should project from the face of the wall with an ample drip groove to ensure that water is kept clear of the render. Gutters and down-pipes must also be designed to keep water off the facade. Angles may be formed using PVC angle and stop beads, or by using chamfered battens. Some construction materials may be susceptible to alkali attack; fittings and surfaces adjacent that are likely to be damaged should be protected. Plan ahead to avoid discontinuity in any one area or walling which could lead to unsightly joints in the rendering. For further information about resistance to cracking see BS EN 13914-1, Para. 6.13 and BS 5262, Para. 27.3.

MIXING

For all K Rend products use approx. 4-5 litres of clean water per 25kg sack. Consistency in mix proportions is essential to ensure an even finish. Mix thoroughly, it takes at least 10 minutes to dissolve the powder additives;

APPLICATION CONSIDERATIONS

Before any rendering or plastering begins, it is essential to ensure that the scaffolding provides suitable access to the whole of the working face. Note that it may be necessary to damp down walls prior to applying the product to control suction.

K Rend products have a working temperature range of 5°C to 35°C. During hot weather it is recommended that work is started on the shady side of the building and continued round following the sun. In cold weather, if frost is forecast, work should stop in time to allow the material to set sufficiently to prevent frost damage. Drying conditions will vary accordingly to wind, temperature and humidity. Protection from rain and frost should be provided for the first 48 hours after application.

MAINTENANCE

Where general staining occurs, a warm power wash with a suitable detergent can be used to clean up the K Rend finish (this is not suitable for dry dash finishes). Care must be taken to adjust the pressure of the power washer to ensure that the render surface is not damaged during the procedure. 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.

K Rend is compatible with a range of anti-graffiti treatments, for application to areas of high risk. A slight variation in colour should be expected. Paint manufacturers may offer more advice on graffiti removal. Otherwise please visit the Anti Graffiti Association online www.theaga.org.uk.

If a change of colour is required at a later date, K Rend is a suitable substrate for masonry paint.

LIMEBLOOM

Limebloom is a natural phenomenon which can occur in all cementitious systems. It is caused by the migration of soluble salts from the body of the render to the surface. This process takes place when surface water is present. As such, limebloom is a temporary phenomenon, and does not affect the durability or strength of the product. K Rend is the most susceptible to lime bloom in the early stages of setting, before the additives have had an opportunity to take effect. Therefore K Rend needs to be properly protected from the weather and any other sources of water during this period. Applying the material in cold, damp weather extends the period when render is susceptible to limebloom. 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.

MATERIAL SAFETY DATA SHEET COSHH (Control of Substances Hazardous to Health)

1. IDENTIFICATION OF SUBSTANCE / MANUFACTURER

Kilwaughter Minerals Ltd, 9 Starbog Rd, Larne, N.I, BT40 2TJ.

2. COMPOSITION / INFORMATION ON INGREDIENTS

A blend of sand, lime and admixtures. The main hazardous ingredients are Calcium Hydroxide, Calcium Silicates and Alkalis. When mixed with water, the resulting wet mortar is abrasive and alkaline.

3. HAZARDOUS IDENTIFICATION

Contains cementitious binders: harmful if swallowed or inhaled, may cause burns to skin and eyes on contact with bodily fluids, causes irritation to respiratory tract.

4. FIRST AID MEASURES

EYE CONTACT: Wash eyes immediately with plenty of clean water for at least 15 minutes and seek medical advice without delay.

SKIN CONTACT: Wash the affected area thoroughly with soap and water. If irritation persists, seek medical advice without delay.

INHALATION: If irritation occurs, remove patient to fresh air. Get medical assistance.

5. FIRE FIGHTING MEASURES

Presents no fire hazard.

6. ACCIDENTAL RELEASE MEASURES. PERSONAL PROTECTION

See below.

METHOD FOR CLEARING UP

If material is in powder state, sweep up avoiding the generation of dust. If material is a paste, scrape up. Avoid contamination of watercourses and drains.

7. STORAGE AND HANDLING

Keep in a dry, safe place. Avoid generation of dust. When opening and mixing, avoid the formation of dust. Wear protective clothing as outlined.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE STANDARD

OES 8 Hr TWA (Time Weighted Average) 10mg per cubic metre inhalable dust; 5mg per cubic metre respirable dust.

ENGINEERING MEASURES

Where reasonably practicable, control dust exposure by engineering means.

PERSONAL PROTECTIVE EQUIPMENT

Wear suitable protective clothing to avoid contact with skin. Suitable respiratory equipment and suitable eye protection should be worn when handling the products. Protective goggles should be worn when spraying & scraping.

OTHER INFORMATION

The information contained herein is based on our current experience and knowledge, and does not act as a guarantee. A full Material Safety Data Sheet is available. This information is based on current data correct at the time of publication. It is given as guidance in assessing safe handling, storage and use. Recipients of the product must take responsibility for use and disposal of product observing existing laws and regulations. K Rend contains naturally occurring products and as such, minor batch-to-batch variations are inevitable.

9. PHYSICAL / CHEMICAL PROPERTIES

Physical State: Power blend
Particle Size: Typically 5 micron to 8mm
Odour: Odourless
PH: 12-14 when wet
Flash Point: N/A (Not flammable)
Explosives Properties: N/A (not explosive)
Density: 1,200 - 1,800kg/m³
Solubility: Partially soluble in water

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use and storage.
Decomposition: When heated in excess of 580°C calcium oxide fumes and carbon dioxide are liberated.

11. TOXICOLOGICAL INFORMATION (SHORT TERM EFFECTS)

EYE CONTACT
Hydraulic lime is a severe eye irritant, and mild exposures can lead to soreness. Untreated exposure & larger exposure can lead to chemical burning & ulceration

SKIN CONTACT

Hydraulic lime and wet paste can cause irritation, contact dermatitis, allergic dermatitis and / or cause burns.

12. ECOLOGICAL INFORMATION

AQUATIC TOXITY: May be toxic to aquatic life due to pH change.

13. DISPOSAL CONSIDERATIONS

Dispose of waste material and empty sacks at a site authorised to accept builders waste or according to local regulations.

14. TRANSPORT INFORMATION: Not hazardous for air, sea or road freight.

15. REGULATORY INFORMATION

CLASSIFICATION Harmful

Risk Phrases

Inhalation: Harmful by inhalation
Skin contact
Eye contact
Chronic Exposure
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Ingestion: Harmful if swallowed
Harmful in contact with skin. Causes burns.
Risk of serious damage to eyes
May cause sensitisation by skin contact

Safety Phrases

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Do not breath dust. Avoid contact with skin. After contact with skin, wash immediately with plenty of soap and water. Wear eye face protection. In case of insufficient ventilation wear suitable respiratory equipment. Keep out of reach of children. Wear suitable protective clothing.

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