



Natural Hydraulic Lime Mortar

APPLICATION INSTRUCTIONS & HEALTH AND SAFETY INFORMATION



K LIME COARSE 413

K LIME COARSE 413 - PLASTERING

K Lime Coarse 413 is designed for hand application.

It is used for plastering or dubbing out irregular backgrounds and where heavier coats are required. Thickness should be as per product specification - maximum 20mm per coat. 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. Allow initial set to take place and then scour back using a cross grained wooden float and key (criss cross pattern).

Do not overwork the surface. Over the first 2 - 3 days cure with a light water mist 2-3 times per day and check for shrinkage cracks. If found, dampen slightly, tighten back and re-key. Protect during curing. Allow a minimum of 48 hours curing time before further application - 1 week in cold weather. For information on unusual or difficult substrates, seek further technical advice. Coverage: 1.6 - 1.8kg / mm thick / sq m. **Require:** 22 - 29kg / sq m approx for 14 - 16 mm thickness.

K LIME COARSE 413 - BUILDING

K Lime Coarse 413 is designed for building random rubble and coarse stonework at a nominal joint thickness of 25mm. The coverage is 1.6 - 1.8kg / mm thick / sq m. For a joint of width of 25mm and depth of 50mm one 25kg bag will give approximately 11 metres of joint. For random rubble allow approx 40 - 50kg / sq m.

K LIME SETTING 213

K LIME SETTING 213 - PLASTERING

K Lime Setting 213 is designed for hand or spray application. If it is to be over coated 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. Allow initial set to take place and then scour back using a cross grained wooden float and key (criss cross pattern). Do not overwork the surface. Over the first 2 - 3 days cure with a light water mist 2 - 3 times per day and check for shrinkage. If found, dampen slightly, tighten back and re-key. Protect during curing. Allow a minimum of 48 hours curing time before further application - 1 week in cold weather. For information on unusual or difficult substrates, seek further technical advice. K Lime 213 can be wood floated as a suitable background for painting. Coverage: 1.6 - 1.8kg / mm thick / sq m. **Require:** 13 - 18kg / sq m approx for 8 - 10 mm thickness.

K LIME SETTING 213 - BUILDING

K Lime Setting 213 is designed for building bricks, blocks and cut stone at a nominal joint thickness of 8 - 10mm. The coverage is 1.6 - 1.8kg / mm thick / sq m. For a joint of width of 10mm and depth of 75mm one 25 kg bag will give approximately 18 metres of joint. Allow approx 14 - 18kg / sq m for block laying (15 - 18mm joint thickness).

K LIME FINISHING 112

K LIME FINISHING 112 - PLASTERING

K Lime Finishing 112 is designed for hand or spray application. It is used for rendering and plastering as a finish coat.

Finishing 112 is designed to be steel floated for a 2 - 4mm thickness, ready for painting. Coverage: 1.6 - 1.8kg / mm thick / sq m. **Require:** 3 - 7kg / sq m approx for 2 - 4 mm thickness. Do not polish.

K LIME FINISHING 112 - BUILDING

K Lime Finishing 112 is designed for building dressed stone at a nominal joint thickness of 4 - 6mm. The coverage is 1.6 - 1.8kg / mm thick / sq m. For a joint of width of 5mm and depth of 75mm one 25kg bag will give approximately 35 metres of joint. Allow approx 13 - 19kg / sq m for brick laying (4 - 6mm joint thickness).

K LIME ROUGHCAST

K Lime Roughcast is prepared by blending K Lime Roughcast binder with 4-8mm Limestone chips in the ratio 2 parts binder to 1 part limestone chips. It is used to produce a traditional roughcast or wet dash finish. Firstly, apply K Lime Setting 213 in 2 coats of 10mm as a primary coat over blockwork. Next, apply a butter-coat of K Lime Finishing 112 to a uniform thickness of approximately 4-6mm. Blend K Lime Roughcast Binder with 4-8mm Limestone chips in a 2: 1 ratio (2 parts binder to 1 part chips). Mix K Lime Roughcast for at least 10 minutes to break down additives, adding 5 - 7 litres of clean water per 25kg sack to obtain a wet plastic mix. Whilst the K Lime Finishing 112 coat is still green, throw K Lime Roughcast on to the surface, using a hand scoop or a mechanical applicator. Great care should be taken to obtain a wide, even spread. Coverage of K Lime Roughcast : 12 - 15kg per square metre

K LIME SB1

K Lime SB1 is used to improve the adhesion of K Lime renders to difficult substrates such as natural stone and brickwork. It is applied using a hawk and trowel, scrubbed into the surface and immediately textured to leave a rough stipple finish. Coverage 1.6 Kg/mm thick/ sq. m; **Require** 5 Kg/ sq. m approx., depending on condition of and suction of the substrate; Nominal 2-3mm thickness.

CURING & AFTERCARE

Curing is best achieved in warm, moist conditions. To prevent rapid drying & to protect against frost, screen the material against strong, direct sunlight & provide physical barriers to reduce wind action. The preferred form of protection is dampened hessian covers. Small mesh debris netting or tarpaulins can be used on the outside of the scaffolding; the use of plastic sheeting should be avoided. Cure with a light water mist 2 - 3 times a day for 2 - 3 days; check for shrinkage cracks & repair accordingly.

OTHER INFORMATION

Kilwaughter Minerals Ltd are an ISO 9001 & ISO14001 registered company. The BS EN 13914-1 Design, preparation and application & of external renderings and internal plastering must be followed at all times. A technical advisory service is available on request.

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 Lime products are non-returnable.

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.

APPLICATION CONSIDERATIONS

Before any rendering 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 Lime 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.

MIXING

For all K Lime 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.

MAINTENANCE

Where general staining occurs, a warm power wash with a suitable detergent can be used to clean up the K Lime 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 Lime is a suitable substrate for a good quality vapour permeable calcium silicate or lime based paint.

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 causes 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 Lime 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
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.