



The Spinney St Mary's Lane Bexhill-on-Sea East Sussex TN39 5JE

EXTERNAL LIME RENDER**Workmanship**

Workmanship will be in accordance with BS 5262 External Rendering

Lime

Lime putty shall be high calcium white lime to BS890 matured for a minimum of 3 months, delivered in sealed containers and kept under water seal until required for use.

Hydraulic Lime

Natural hydraulic lime NHL2.5 or NHL3.5 to BSEN459:1995 as appropriate to be St. Astier or similar and approved. The use of hydrated lime is not permitted.

All lime to be prepared, mixed and applied in accordance with manufactures/suppliers recommendations.

Sand

Sand for internal plastering shall be sharp, well graded and well washed to BS 1200. The sand should be well graded 3.5mm down in the following ranges:

Render coat	9mm
Floating coat	9mm
Finishing coat	6mm

Sample panels

It is advisable to require the contractor to produce a sample panel 1mx1m to ensure good working practices and to achieve a satisfactory match to the lining out of the existing so that it can be used as a template during the course of the works.

Defects to existing render

Areas of existing render which are extensively cracked or hollow should be cut out to the backing with slightly undercut edges on all but the bottom. After cutting out all dust, loosely adhered material, efflorescence and any organic growth must be thoroughly removed by bristle brushing and treating with a fungicide.

Hollows and depressions should be dubbed out in as many coats as necessary with no one coat exceeding 9mm. Before rendering is applied to a surface the background should be dampened to reduce and control suction, especially in hot weather.



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Repairs to existing lime render

Lime putty to be mixed within the container to form a paste. The paste is then to be screened through muslin. The residue left within the muslin to be set aside for cracks larger than 5mm. Whilst the screened solution is to be injected into narrow cracks less than 5mm using a syringe.

or

Limewash purchased from a reputable supplier and made with extra fine mature lime putty.

Carefully drain off top solution and retain the residue grout fine cracks less than 5mm in width

Any loose fragments of dust / debris to be removed by blowing out. Using hand spray wet surrounding lime putty render with water to prevent suction.

Flush crack using a 30cc hypodermic syringe with water until water runs clear and then using 15cc glass syringes fitted with 1mm blunt needles inject water into the crack in several operations.

As soon as the surrounding areas and cracks have been wetted inject lime putty 'slurry' into the crack using syringes as previously described. Repeat this process working from bottom of crack to top until the crack is filled. Where grout mix runs onto the face of the rendered panel remove using a wetted soft bristle brush.

Protect from the sun for a period of a week and dampen down areas for 3 days.

NOTE: leave rendered panels for at least one week prior to preparation for decoration.

Preparation of Background

Rake out stonework joints to a minimum depth of 10mm or score the preceding undercoat to provide a key

The surface should be clean, free from dust and any organic material such as lichens etc

Test the surface of the masonry backgrounds for dust by applying a piece of masking tape to the masonry and immediately remove, examine the sticky side for traces of materials that may affect the bond between the plaster and the wall.

Dampen area as necessary to prevent suction between the first coat and the wall (and between all subsequent coats) A loss of moisture will result in a weakened bond between the substrate and the mortar.

First Coat (Render Coat)

2 parts Lime putty : 5 parts well graded sand or

2 part Natural Hydraulic Lime (NHL) : 5 parts well graded sand

Mix in accordance with manufacturer's recommendations,



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Masonry

When working on hard surfaces the mortar should be applied by throwing (a spray gun can be used) or with a laying on trowel on to a dampened but not wet background. The render coat should be scratch-combed finished unless applied was a spatterdash using a spray gun.

Do not straighten the rendering coat.

Control the rate of drying as necessary by misting the surface with clean or lime water, until all shrinkage has stopped and the mortar hardened sufficiently to take the second coat.

Do not over-wet (water droplets to the surface constitutes over wet), plastering onto laths may take longer to dry than plaster applied to a masonry background.

Second Coat (Floating or straightening coat)

Using the same mortar as the render coat (2:5 mix) , mix in accordance with recommendations and apply with a laying on trowel to a dampened background.

Fill out any irregularities in thin layers and apply floating coat to the desired line using rules and dabs.

Maximum thickness to be 9mm in one pass.

Tighten in as previously described with a cross grained wood float and key lightly to receive the finish using a scratch comb.

Make good any irregularities

NOTE the second coat should not be applied until first coat sufficiently hard (approximately 7 days, depending upon curing conditions)

Finishing Coat

1 part Lime putty : 3 parts fine silica sand 0.8 to 0.075mm, clean and free from silt or clays.

1 part Natural Hydraulic Lime NHL :3 part fine silica sand 0.8 to 0.075mm, clean and free from silt or clays.

To obtain the best finishing re-work the setting stuff the day after.

Apply with a laying on trowel and finish with a cross grained wood float, dampening as necessary as the set takes up (suction from the background).

Final finish is achieved by trowelling the surface with a steel float and dampening as necessary. Finish in one direction top to bottom. Mark out the surface with a rule and marking tool to exactly match the existing pattern using levels and plumb rules. Line out using a straight-edged rule and jointing tool. Remove any seldedge using a small wooden float.



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Patching finished lime plaster into a repair requires care as the finish is sand based and will therefore abrade and degrade the existing edges leaving a dull surface. Allow a clean break of a few millimetres around the patch and fill with NHL2.5 made into a putty with no sand content when the patch is fully hardened.

Protection

Work should not be undertaken in frosty conditions or when the temperature is likely to fall below 8 degrees during the execution of the work or until the mortar has hardened. Protection should remain in place for as long as necessary.

Ensure that the drying out rate is consistent and that strong draughts are excluded from the working area.

Do not accelerate drying by excessive heating. If heating is required to maintain proper working temperatures use propane heating which will produce heat and moisture simultaneously. Ensure that the temperature is adequately controlled.

Decoration

Paint finishes should only be applied to fully dry and set work. Use either modern microporous (breathable) paints or traditional lime wash, lime, distemper and casein paints.

Ideally external renders should be limewashed so as to allow the optimum breathability, however were it is likely that some residue from previous painting systems will remain Keim mineral paint or similar and approved will adhere to both the lime stucco and the modern paint, providing a consistent but breathable painted finish.

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