

**SPECIFICATION M75 RENDER & INTERNAL PLASTERWORK REPAIR / RENOVATION**

- 10 SAND: To BS 1199 Table 1. Use well graded, clean, gritty sand from a BSI registered source.
- 40 LIME/ SAND MIX (COARSE STUFF): Either.
- a) Ready mixed to BS EN 998-2:2003, BS EN 998-1:2003 Specification for ready mixed mortars, or
  - b) Prepared by mixing lime putty with sand, or
  - c) Prepared by mixing hydrated lime powder with sand, firstly in a dry state and then adding water to the mixture until a firm creamy mixture is achieved. Keep covered by water in sealed containers for at least three weeks.
- 50 LIME PUTTY: Kept damp before use and either:
- a) Ready prepared to BS 890 Section 4, or
  - b) Slaked by adding hydrated lime powder to water until a mixture with a consistency of thick cream is achieved. The mixture is to be sieved and left covered by water in sealed containers for a minimum period of three weeks.
- 70 REPAIRS TO CRACKS: Cracks under 5mm width are to be filled using an appropriate crack filler. Larger cracks are to be repaired by cutting out to a minimum width of 25mm back to the masonry backing, ensuring that the edges are slightly undercut. After cutting out, all dust loosely adherent material, efflorescence and any organic growth is to be removed by bristle brushing and treatment with fungicide. Wet masonry background to control suction and build up plasterwork in 3 coat work as specification clause M75/55 (mix E and F).
- 90 HYDRATED LIME POWDER: to BS EN 459-1:2001, Specification for Building Limes.
- 95 HYDRAULIC LIME: supplied in bagged form by manufacturer:
- Tellings Lime Products, Strawberry Lane, Willenhall, West Midlands WV13 3RS
- Reference: Unilit B10-E  
Unilit B-FLUID-X

- 100 PRE-MIXED HYDRAULIC LIME: supplied in bagged form pre-mixed with aggregates from Telling Lime (Tel. 01902 789722).  
Reference: Unilit 10, bonding layer, 1 coat  
Unilit 30, 2 coats  
Unilit 45, finishing coat placed in 2 x 2mm thick coats fresh on fresh.

#### **BONDING AGENTS**

- 125 GENERALLY: proprietary manufacturer, compatible with background, undercoats and finishing materials (to be used only as specifically instructed).

#### **ADDITIVES / GROUTS**

- 130 PLASTICISER: to BS 4887-1:1986 and manufactured by BSI Kitemark Licensee. Confirm type and use with CA prior to ordering.
- 135 HTI POWDER: of proprietary manufacture and to CA approval.
- 140 HYDRAULIC LIME GROUT: Supplied in bagged form. Manufacturers:

Telling Lime Products  
Strawberry Lane  
Willenhall  
West Midlands WV13 3RS  
Tel. 01702 789722

Type: Use range as follows:

BF I .00 pure lime injected by hypodermic syringe.  
B.FI.01 - B. FI. 04 increasing aggregate size applied by squeeze bottle.  
01 indicates 1mm aggregate size up to 04 that has 4mm aggregate.

Or similar approved manufacturer.

#### **EXISTING BATTENS / NEW LATH / FIXINGS**

- 145 NEW SOFTWOOD TIMBER BATTENS: Check all existing battens from above. Rotten battens are to be replaced with new treated battens, size to match existing.
- 150 NEW LATHS: Use new split hazel laths. Size of laths is to be as existing and is to be between 25-32mm wide x 10mm thick in 900-1500mm lengths. Fix laths parallel and approximately 10mm apart. Nail laths to battens, ensuring that they do not overlap. Laths are to be soaked in lime water the day before and 2 hours before rendering to give a good key.

- 155 WIRE STAPLES (if required): In stainless steel.
- 160 TYING WIRE (if required): 1.2mm diameter stainless steel wire.
- 170 STAINLESS STEEL WOOD SCREWS: To BS EN ISO 3506-1:1998, BS EN ISO 3506-2:1998, Corrosion resistant stainless steel fasteners.
- 180 MASONRY NAILS: Type and material to be compatible with lath specified.

#### **BIOCIDES / FUNGICIDES**

- 200 FUNGICIDE: Panacidem or similar to CA approval.
- 210 DEVEGETANT: Amcide Root - Out or similar to CA approval.

#### **WATER**

- 220 WATER: From water company mains supply unless authorised by the CA.

#### **WORKMANSHIP**

- 240 MAKING RECORDS
- a) Record photographically all areas of render to be repaired/restored, or removed prior to commencement of operations on site.
  - b) Cross refer areas taken down completely or cut out locally onto drawings, schedules or other to CA's requirements.
- 250 INSPECTION: Gently tap areas of render to be retained and schedule areas where hollow sound indicates that the finish is 'live'. Agree extent of detached work with the CA and mark on drawings and schedules.

#### **GENERALLY**

- 260 BRITISH STANDARD: Comply with the following British Standards wherever appropriate:
- a) BS EN 13914-1:2005 Code of Practice for External Renderings.
  - b) BS 8000-10:1995 Code of Practice for Plastering and Rendering.
- 270 SAMPLES: Provide samples of in situ plaster or plaster repairs in accordance with CA instruction.
- 280 PROTECTION: Provide all necessary support and protection to render finishes scheduled to remain.

- 290 PROTECTION: Protect all associated works from damage by dust, ingress of water, impact and the like.
- 300 DISPOSAL: Dispose of all debris generated during the work at a registered tip to leave the site clear.

#### **REMOVING RENDER/ PREPARING SUBSTRATE**

- 320 METHOD STATEMENTS: Prior to taking down existing plaster submit method statement to the CA describing protection measures, method of removal and protective barriers to prevent unauthorised access to the works. Seek written approval prior to commencement of the work.
- 330 REMOVING RENDER/PLASTER: Remove in accordance with the approved method statement
- a) Using methods that will not disturb the existing sub-structure or adjoining render to remain in-situ,
  - b) Using non-percussive methods where possible, especially adjacent to render to remain,
  - c) Ensuring all attached mortar is totally removed prior to placing new work.
- 340 CUTTING OUT RENDER FOR PATCH REPAIR
- a) Test surrounding edges and identify loose areas. These areas must be agreed with the CA prior to commencing work, in accordance with specification refs. M75/240 and 250.
  - b) Edges of cut out area are to be to a straight line or regular curve. Avoid irregular piecings.
  - c) Where possible cut edges to an undercut profile, other than lower edges in horizontal plane which will trap water.
  - d) Cut back to joint lines / features where possible.
- 350 PREPARING BACKGROUNDS GENERALLY: Ensure that all contaminants that are not compatible with render finishes are completely removed prior to commencing work. The contractor is to satisfy himself that backgrounds are completely sound, stable, free from efflorescence and free of dampness caused by defects.

360 PREPARING MASONRY BACKGROUNDS:

- a) Ensure all gypsum products have been removed from rendered surfaces,
- b) Lightly rake out mortar joints approximately 10mm to improve key, removing deleterious materials.
- c) Clean off all loose materials, mortar droppings, dust, laitance, and efflorescence. Treat and remove all organic growth on surfaces to be rendered.

420 DIFFERING BACKGROUNDS: At junctions of differing materials behind a continuous render finish, adopt the following method:

- a) Straddle the joint with bitumen coated or stainless steel EML. Fixing with laps 100mm on all sides with stainless steel wood screws and nylon plugs into joints.
- b) Coat metal lath with a spatterdash coating.

**APPLYING RENDERS**

470 DUBBING OUT: Dub out to form a plane surface for render undercoats where surface is severely uneven:

- a) Material to be used will be as the render undercoat but will not form part of the total coating thickness specified.
- b) Comb dubbing out coat horizontally with a metal comb.
- c) Leave for 24 hours minimum or until the coat has hardened.

480 RENDERS GENERALLY

- a) Thickness of undercoats should not exceed 15mm and will generally be 10mm depending on evenness of background.
- b) Each successive coat is to be less thick and/or of a less dense mixture than the previous one.
- c) All coats are to be applied with firm pressure to exclude air and ensure a good bond.

500 APPLYING HYDRAULIC LIME UNDERCOATS: Thoroughly clean and prepare masonry backgrounds in accordance with Tellings' recommendations, apply spatter coat and:

- a) Prior to placing render, reduce suction by splashing with water as necessary,
- b) Thickness of coating to be 15mm to 20mm each layer applied in an evenly thick coating,
- c) Applied using firm pressure to exclude air and ensure a firm bond,
- d) Comb with evenly spaced wavy horizontal lines to provide key for overcoating.
- e) Allow to dry for 48 hours minimum before applying further coats.

510 APPLYING HYDRAULIC LIME FINAL COAT: Apply hydraulic topcoat:

- a) In two coats of uniform thickness each 2mm.
- b) Applied fresh on fresh using firm pressure with a wooden float to exclude air and ensure a firm bond.
- c) Reduce background suction by splashing with water as necessary.
- d) Allow to dry for 48 hours protecting from frost and other inclement weather for 72 hours.

**REPAIRING RENDER**

530 GROUTED REPAIR

- a) Drill injection points, where possible, along crack lines, at locations agreed with the CA. Holes to be suitable to receive applicator which may be a syringe or rubber tube depending on the amount of material to be placed.
- b) Wash out injection point and cavities with a solution of one part water to four parts ethyl alcohol. Ensure that areas to receive grout are fully dampened to control suction. Monitor cracks during this operation and record areas where water emerges.
- c) Plug cracks, holes and the like with tow to prevent grout running out from cavity.
- d) Ensure there are sufficient holes for trapped air to escape during pouring. Plug these holes as grout reaches that level.

- e) Pour/ inject grout mix starting from the lower level and working up. Carefully control the quantities of materials placed during any one operation to ensure that pressure is not allowed to build up, and eventually blow off the existing render finish.
- f) Allow to set and continue the operations until all hollow areas are full.
- g) Remove all spillages immediately and on completion clean off all tow and deleterious material.