



INJECTION MORTAR

Cementitious Grout for the control of Rising Damp

C1/SFB 1976

YU3

JULY 2001

DATA SHEET



SPECIAL PROPERTIES

- Particularly suited to random stone wall construction.
- For use in walls unsuitable for pressure systems.
- Complements the Wykamol Group Range of Rising Damp Treatments.

DESCRIPTION

The Mortar

Injection Mortar is a specially formulated composition which, when mixed in the correct proportions with water and inserted as described, will create a chemical damp-proof course in walls above ground level. The process described in general terms below can be effective in stopping rising damp in buildings lacking an orthodox DPC or where the existing DPC has broken down in brickwork or stone and the wall is not heavily impregnated with hygroscopic salts. The process is particularly useful in random stone wall constructions where a central core of rubble exists or in any other situation where lack of continuity in the construction precludes the sole use of other systems. Structures constructed out of solid chalk or clay stone walls filled with earth or or black ash mortars lacking any significant lime content, may not be suitable substrates for Injection Mortar treatments.

All treatments should be in accordance with B.S. 6576: 1985, Code of Practice for the installation of chemical damp-proof courses.

THE EQUIPMENT REQUIRED

- A Rotary Percussion or Hammer Drill and suitable Masonry Drill Bits.
- A large sized caulking gun (approximate volume - 1 litre) or small pneumatic hand pump.
- Measuring containers and buckets, or other suitable vessels for mixing.

PREPARATION WORKS

Check and overhaul rainwater goods and soakways to ensure good order and clean, repair or install drains to carry away surface water. Inspect and clear out wall cavities if necessary.

If the internal floor level is at or below external ground level, form trenches along the external face of the walls to at least 150mm (6") below the proposed DPC level. Do not excavate below footing level or affect the structural stability of the wall.

Carry out any repairs or repointing and leave to cure before installing DPC.

Remove skirting and fixings and plaster to expose the line of the proposed DPC. Plaster which may be affected by hygroscopic salts

should be removed to not less than 300mm (12") above the last visible signs of dampness or 1m above the proposed line for the DPC, whichever is the higher. Check the removed skirting and put all sound items to one side for reinstatement. Inspect other associated joinery and flooring timbers and if fungal decay is located take the appropriate remedial measures.

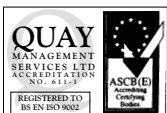
Ensure wall cavities are clear of debris. Remove external render to expose the lines of the DPC and consider removal and replacement of contaminated/unsound material above the DPC line where necessary. When working on party walls the drilling (hammer motion) may cause disturbance to decorations or ornaments in adjoining properties (permission may be required under the Party Wall Act 1996).

DRILLING

18-20mm holes are drilled at the intended DPC level at an angle of depression of approx. 30° to a depth equivalent to the thickness of the walls. To avoid damage the drilling is normally started in the mortar line and percussion drills are not used when the drilling is close to the remote face. Normally drillings are made from each side at a maximum spacing of 230mm. The opposing drillings are staggered to give an overall spacing of 115mm. Where access is restricted drillings are made from one side at maximum centres of 115mm. Half-brick walls are not drilled but the bed-joint should be raked out a minimum one-third of its depth ready for filling (grouting) with Injection Mortar.

PREPARATION AND INJECTION OF MORTAR

1. Flush the drill holes (or mortar joints) with water to remove dust and ensure that the drilled holes are thoroughly wetted to create an initial suction.
2. Mix the mortar in the proportion of 3 parts water to 5 parts mortar by volume using cold water adding powder to water. Mix until the consistency of a smooth cream is achieved (slightly stiffer for pointing).
3. The mixed mortar will become hot (exothermic) and should be allowed to stand for 3-5 minutes before re-mixing and filling the caulking gun.
4. Insert the nozzle of the caulking gun to the full depth of the hole and commence the trigger action withdrawing the nozzle as the hole fills, ensuring no air gaps are left. The hole should be filled to within 25mm of the masonry surface.
5. Repeat this process for each hole.
6. Insert vertical damp-proofing courses where garden walls or other porous masonry abuts onto the affected walls of the building, using the above technique.



It must be emphasised that curing of the mortar occurs quickly and only small amounts should be made up at any one time. All apparatus must be thoroughly cleaned with clean water at frequent intervals during injection or the equipment will be rendered useless.

Frequent agitation of the prepared mortar will extend the period during which the mix can be used, but it is recommended that the time should not exceed 30 minutes. Do not re-temper by adding extra water.

After the mortar has set the external holes/joints can be re-pointed with a coloured waterproof sand:cement mix to prevent the excessive migration of Injection Mortar salts into the surface. Internal holes/joints can be left unplugged or capped as above.

FINISHING WORK

Drying Time

After the insertion of a DPC, the residual water in the wall must evaporate before normal dry conditions are achieved. The time will vary according to the amount of water present and the thickness of the wall but one month per 25mm (1") thickness of wall is quoted as a guideline, (assuming normal heating is used during winter months).

Replastering

Replastering must be carried out in accordance with the Wykamol Replastering Specification (see separate sheet).

Ideally, this work should be deferred as long as possible to encourage drying but a minimum 14 days between treatment and replastering should be allowed.

All replaced skirtings etc., should be pre-treated or treated with a suitable preservative in-situ.

The first decoration should be regarded as temporary. A Trade Matt Emulsion is recommended. Do not apply heavier finishes or paper until the wall is dry.

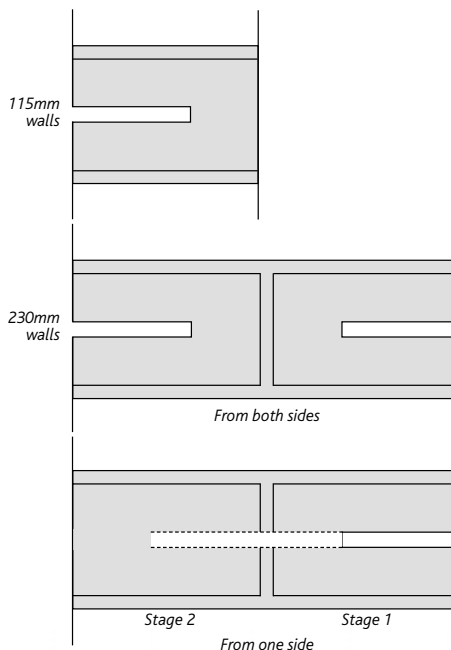
External rendering should be applied in accordance with BS5268 and terminate in a bell mouth at DPC level.

OTHER SOURCES OF DAMP

Where penetrating damp or condensation may be a problem, appropriate remedial measures should be carried out in conjunction with dpc work (consult the Wykamol Technical Department).

PRODUCT DATA

Consumption	1 x 25kg will produce enough mortar to treat approx. 50m-113mm coursed brick wall - repointing. or 27m-345mm coursed stone/brick wall - injection or 13m-690mm coursed stone/brick wall - injection Random stone walls may require approx. double the quantity of mortar for any given thickness.
Curing Time	24hrs (set in 2-3 hours) - pot life is 30 minutes.
Thinning/Cleaning	All utensils should be cleaned in clean water immediately after use and before the mortar has set. Set mortar can only be removed by mechanical abrasion or immersion in a 5% solution of hydrochloric acid which may damage the metal parts of the equipment used.
Storage	Store in a cool, dry place.
Shelf Life	Six months from date of manufacture in optimum conditions.
Pack Size	25kg.
Safety	Instructions for safe handling and use are given on the product label. More detailed information on safety is available in the Injection Mortar Material Safety Data Sheet.



TECHNICAL INFORMATION

The information contained in this data sheet is for professional damp proofing specialists and is compiled accordingly.

Further information and advice is freely available from the Wykamol Technical Department.

The Company warrants this product to be of merchantable quality and fit for the purpose designed, providing that any instructions relating to use, handling and storage are duly observed. All transactions subject to our standard conditions of sale, copies available on request.



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