

# Gravity Damp Coursing Guide

Every situation can be slightly different, but the following steps should be followed as a guide.

 Remove skirting board and clean bricks.
On the first mortar course above floor level, drill two holes per brick at damp coursing level.
Insert Gravity Applicator Tubes into drilled holes.

4. Pour Rising Damp Absorption Fluid into tubes.5. Once horizontal permeation of brickwork and mortar is complete, a new damp course will be operational.

Further details of these principles to follow.

# Snug fit

DRILLING



Start drill holes, two per brick, approx 120mm apart

#### SNUG FIT HOLE SIZE

Plan to drill a diameter hole in the bricks that will provide a leak-free seal between the hole and the applicator nozzle. The intent is to create a drill hole that allows the sealing tube to be fitted in a snug, push fit, manner (as shown). The hole diameter is generally 10mm. However, adjustments for very soft bricks could be drill 9mm, or very hard bricks drill 11mm.

Standard steps are:

1. Carefully remove the skirting boards from the wall.

2. Remove any render covering the lowest course of bricks so that the entire brick face and surrounding mortar is clearly visible.

3. Drill Bricks at 45 degrees, two per bricks at about 120mm apart.

#### Remove the dust from the holes using a vacuum cleaner.

**NOTE:** If mortar is missing between bricks, re-mortar the missing areas, let the mortar set, and proceed with the damp coursing.







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The drilling method varies slightly depending on the type of bricks present. Assess type of bricks you are working with, then choose the drilling method.

#### SOFT AND NOT SO WET BRICKS

Older or Victorian houses will often have soft bricks. The bricks are easy to drill, with dust coming out of the hole as a dry powder.

**Drilling:** Choose **10mm** diameter masonry drill bit, drill two blind holes starting at the mortar line level, angled into the brick at approximately 45 degrees, to a depth of about 90mm. Spacing each hole around 120mm (as shown). Should a hole be inadvertently drilled through the brick, a new hole should be drilled beside it.

#### HARD OR WET BRICKS

Wet bricks have drilling dust that does not look like a freeflowing dust but clumps together. Hard bricks are found in houses built from about 1900 to the present. Clinker bricks and pressed clay bricks are hard bricks. Both are suitable for this drilling method.

**Drilling:** Choose **10mm** diameter masonry drill bit, drill two blind holes starting at the mortar line level, angled into the brick at approximately 45 degrees. The holes should start at the mortar line level and be drilled down through the brick until the drill bit reaches the mortar line below. Spacing each hole around 120mm (as shown).

#### WIRE CUT BRICKS

Wire cut bricks are made with holes, often found in properties built after about 1970. Many brick veneer or construction with the outside of cavity walls.

**Drilling:** Choose **10mm** diameter masonry drill bit, drill two holes starting at the mortar line level, angled into the brick at approximately 45 degrees. The holes should start at the mortar line level and be drilled until the drill bit enters the holes in the bricks. Spacing each hole around 120mm (as shown).



## WALL TYPES

There are three types of wall that gravity damp coursing is suitable. Single Brick, Solid Double Brick and Cavity Brick Wall. Single Brick walls can be treated from the most convenient side, whilst Solid Double Brick and Cavity Brick Walls require to be treated from both sides.

**Single Brick Wall** 

treat from convenient side



Solid Double Brick treat from both sides



Cavity Brick Wall treat from both sides



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# **INSTALLING TUBES**

**First:** With the coil of sealing tube supplied, cut into 40 mm lengths and push about 20mm into the drilled hole. The tube should be a snug fit as described earlier.

**Second:** Push and turn the nozzle into the seal tube. The tapered nozzle should wedge into the inside of the tube, forming a seal that stops the leakage of fluid.

**Third:** Cut off the end of the tube to allow the D - BARRIER ABSORPTION FLUID to flow into the applicator nozzle.

**Fourth:** Slip the ring seal over the end of the tube reservoir to stop it from leaking.

**Finally:** Screw the tube reservoir firmly into the nozzle. DO NOT over-tighten.

Now ready to fill the D – BARRIER, GRAVITY RISING DAMP ABSORPTION FLUID



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## **Filling Tubes**



Fill each tube reservoir with about 150ml of D – BARRIER, ABSORPTION FLUID using the jug supplied. The fluid level should gradually get lower as the fluid is absorbed into the brickwork. Ensure no fluid is waisted by leaking from the seal ground the nozzle and tube..

Each 150ml fill into a tube will normally delivers enough fluid to completely saturate a single brick thickness of wall. The D – BARRIER, ABSORPTION FLUID should take from 3 hours to 18 hours to completely permeate into the bricks and surrounding mortar, leaving a darkened appearance. With Hard or Wet bricks where the drill hole ends in the mortar line, fill each tube reservoir three times with 50ml of the D – BARRIER, ABSORPTION FLUID (to achieve a total of 150ml in total for each tube). Only fill a tube reservoir when the previous 50ml of fluid has drained out of the tube. The fluid will run out of the tube very quickly, this is normal, as mortar lines are very permeable. There should be a darkening of the entire lower mortar line after a few hours.

**Coverage:** With an average usage rate of 1.5 litres per metre of single brick wall

Once the D – BARRIER, ABSORPTION FLUID has impregnated the bricks in a complete horizontal layer, the wall above this layer will begin to dry out.

# REMOVAL OF NOZZLES AND TUBES

 Each tube should be unscrewed from the nozzle.
Remove the nozzle from the wall by turning and while gently pulling. The sealing tube usually remains in the drill hole, and can be removed by pulling with a pair of pliers.
The nozzles and tubes can now be re-used on the next section of wall.

The installation of the damp course is now complete and the wall will begin to dry out.