

# **How to Damp Proof Walls**

## **Rising Damp Treatment – Damp Proof Injection**

[View the DIY rising damp proof injection video.](#) This DPC treatment clip lasts only 45 seconds.

### **What is rising damp?**

Rising damp is the upward movement of ground water through permeable masonry walls. The water rises through the pores in the masonry wall via a process called capillarity. Capillarity is an electro-chemical process whereby water molecules are attracted to mineral surfaces, enabling water to move vertically through pores of a certain size despite the counteractive force of gravity.

### **What is a damp proof course?**

There are two main types of damp proof course (DPC). The first is an impervious barrier, usually laid along a bed joint during the construction of a building. The second is a remedial chemical DPC, which can be introduced by trade specialists, competent builders or DIY enthusiasts. The damp proofing chemical is normally applied along the base of walls that are suffering from the effects of rising damp. Contrary to common belief a chemical DPC does not form an impervious physical barrier. Chemical damp-proofing is an effective method of lining the pores along a stretch of masonry wall with a silicone resin water repellent. For the purists, a pore-lining silicone rising damp treatment works by neutralising the charge attraction of the masonry pores to the water molecules.

### **Where should chemical damp proofing be installed?**

You should choose a chemical DPC system that is specifically designed to be introduced into the mortar joints. The mortar presents the only continuous passage ascending up a wall through which water is able to rise. Therefore a mortar bed joint is the only layer that can function as a damp proofing layer. Introducing a DPC into just each brick or block unit along a stretch of wall will not stop the water rising through the joints between. In accordance with BS6576:2005 a DPC should be sited at least 150mm above external ground level and internally beneath ground floor joists, or close to the floor if solid. If the two are incompatible please phone our help line for DIY or trade advice. Where a newly injected damp proof course is to finish additional injection holes should be drilled vertically, up to a height of 1m in a zigzag pattern that follows the mortar line, and the holes injected with DPC cream to form a vertical damp proof course that will stop the transmission of damp from abutting walls.



### **Which type of chemical DPC is most effective against rising damp?**

The 21st century has brought us modern damp proofing cream technology to supersede high pressure injection fluids. The early chemical damp proof creams contain between 10-60% active ingredients, relying on thickening agents to produce a workable cream with a pasty viscosity. Damp-Cure DPC is a silane / siloxane formulation thickened by emulsification to produce 100% active creams with no thickening agents.

Holes are drilled into the mortar at 100-120mm intervals and the DPC cream is dispensed into each hole. Damp-Cure 100% pure damp proof creams migrate more fully and rapidly into masonry pores than the earlier additive-thickened varieties.



### **Why replaster after a chemical DPC injection?**

Chlorides and nitrates can be found in ground water that has risen through the pores of a masonry wall. Over a period of time large quantities of these salts accumulate within the masonry and plastered surfaces and these salts remain even after the source of water has been eliminated. These ground salts are 'hygroscopic', having a capacity to absorb moisture from the air, especially under humid conditions. This salt damp alone can cause the wall and any contacting decorations to remain damp even after the provision of a new DPC. Replacement of the wall plaster is therefore an essential requirement if the treatment of rising damp is to fully comply with BS6576: 2005 Code of practice for installation of chemical damp-proof courses.