

SILICONATE K

AQUEOUS LOW-PRESSURE CHEMICAL DAMP PROOF COURSE SYSTEM

Description

Siliconate K is a clear, odourless concentrate of potassium methyl silicate. Once diluted with water the liquid is introduced in to predrilled holes by either transfusion or low pressure injection to form a continuous chemical damp proof course.

- SG at 20°C 1.198-1.220
- Active solids content 30% (minimum)
- pH 13 approx.
- Approved by the British Board of Agrément

Dilution

The concentrate should be diluted at the rate of 1:6. A 3.6 litre bottle makes 25 litres of diluted solution. A simple quality control check can be carried out by ensuring that the density of the final solution is between 1.03 and 1.04.

Treatment of Rising Damp

Preparation work: This product is designed to be used in accordance with BS6576 for installation of chemical damp proof courses. All necessary steps should be taken to check, repair and, as required, install suitable drains to conduct away surface water. Any earth at or above floor level adjacent to walls to be treated should be removed. Repointing and repair of brickwork or masonry should preferably be left to cure before DPC installation. The course to be injected should be chosen so that where practicable the DPC line extends at least 150mm above ground level and in the case of suspended timber floors, not independently supported on sleeper walls, be positioned below the timber joists and/or wallplates.



In the case of solid floors injection should be as close to the floor as possible.

The internal DPC line should be exposed by removing skirtings and any other obstacles to effective treatment. Plaster affected by dampness should be removed to a height of 1 metre or 380mm above the maximum level of rising damp to avoid the possibility in time of hygroscopic salts impairing the efficiency of the treatment.

Externally the DPC line should be traced around the building ensuring that it is not bridged at any point and that its position matches as near as possible that on the side of the walls. Any external rendering should be removed to expose the DPC line.

Installation

Holes 10mm to 16mm in diameter should be drilled into the wall to predetermined depths and at 150 to 170mm internals. Half brick (115mm) walls can be drilled to depth of 75mm from one side. Thicker walls (230mm or more) should, where possible be treated from both sides or if access is restricted, injection can be carried out from one side by sequential drilling (75mm, 190mm etc). In some circumstances 230 mm brick walls may be simply drilled/injected from one side by drilling to 190mm and ensuring the centre of the wall is thoroughly saturated with injection solution (see below).

The holes should be drilled either horizontally in to the mortar beds or angled downwards at an angle of 30°-45° terminating in a mortar bed at the level of the required DPC. Injection of the solution should be carried out at a pressure of 300kPa. Nozzles fitted with an expanding rubber sealing washer are inserted into the drilled holes and injection continued until the required volume has been injected. The volumes to be injected will depend on the thickness of the wall, but will be a minimum of 2.15 litres (average 3 litres) per metre run of 230mm thickness wall, and increased proportionately for thicker walls. In saturated walls, lower pressures (c. 100kPa) over longer periods of time are likely to be more successful.

Gravity feed techniques (transfusion) may be considered. In all cases, care needs to be taken to ensure the recommended dose levels are achieved. Complementary vertical DPC's should be positioned where necessary to isolate treated walls from adjacent untreated areas, e.g. semi-detached and terraced properties, abutting garden walls and fireplaces where access to the back of the fire is not available. The inserted vertical DPC should be less than 1200mm high and should also be at least 300mm above the greatest height at which dampness is recorded.

Replastering

The treated walls should be left for a period of at least 15 days for initial drying out to take place before replastering. It should be borne in mind that whilst insertion of a chemical DPC inhibits further moisture from rising up the wall, the moisture present will take time to dry out. (A 'rule-of-thumb' figure is one month per 25mm thickness).

Handling

A suitable re-plastering specification therefore, is one which will provide a water and salt resistant barrier during this drying period. (see Wykamol replastering data sheet).

The Initial Decorating

Decorations following treatment should be regarded as temporary (we recommend a single coat of matt emulsion paint) and final decorations should not take place for at least 12 months.

Product Data

Appearance Colourless, slightly viscous liquid

Coverage 2.5-3.5 litres /m run of 230mm wall covering. The rate of the DPC formation will depend on several factors such as wall thickness, pH and moisture content (approx 2-6 weeks).

Shelf Life 2 years in tightly sealed containers

Storage: Store securely in dry, frost-free conditions. Once diluted, material will remain stable if kept in tightly sealed plastic drums with minimum head space (i.e. 10 litres of injection fluid should be kept in 2 x 5 litre bottles for storage).

Cleaning: Pumps and other equipment should be washed thoroughly before and after use with clean water. Dispose of all washings safely or re-use for dilution of subsequent mixes (if stored as above and not contaminated). Pack Size 3.6 litre and 25 litre plastic containers. Safely Classified 'Corrosive' under CHIP regulators 1999 ("Causes Burns"). Restrictions for the safe use of **Siliconate K** are given on the product label. More detailed Information for risk assessments etc. is available on the **Siliconate K** Safety Data Sheet.

Technical Information

This product is intended for use by professional contractors/specifiers and this data sheet is compiled accordingly. Further information and advice is available from the Technical Department at The Wykamol Group. The information contained here supersedes all previous datasheets.



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