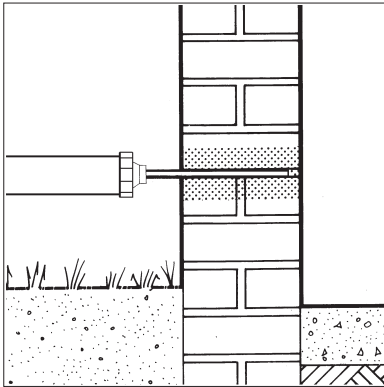


## Product



• THIS DETAIL SHEET REPLACES DETAIL SHEET 9 AND RELATES TO ULTRACURE, A PRODUCT FOR FORMING A DAMP-PROOF COURSE IN EXISTING WALLS, AND THE ASSOCIATED REPLASTERING.

• Installation of Ultracure is carried out by the Certificate holder's approved contractors in accordance with BS 6576 : 2005 and the British Wood Preserving and Damp-proofing Association (BWVPA) Code of Practice COP3 : 1997.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Building Regulations, general information relating to the product, and the Conditions of Certification, respectively.

## Technical Specification

### 1 Description

1.1 Ultracure is a ready-to-use silane/siloxane emulsion cream, and is manufactured by a controlled, batch-blending process.

1.2 The product is packed in plastic buckets, for insertion by a low-pressure displacement pump, or cartridge gun.

1.3 The process involves delivering a set amount of the product into a series of holes drilled into the mortar course and the subsequent replastering (see Detail Sheet 7).

1.4 Quality control is exercised over raw materials, during production and on the final product.

### 2 Delivery and site handling

2.1 The product is supplied in 3 litre buckets and 400 ml and 1 litre cartridges.

2.2 The product should be stored in a cool, dry place and protected from frost.

2.3 The product is not classified under The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP3).

## Design Data

### 3 General

3.1 Ultracure is satisfactory for use to provide a barrier against rising damp where there is no damp-proof course or where the existing damp-proof course has failed.

3.2 The product is for use in existing:

- solid walls of brickwork, blockwork or masonry, up to 600 mm thick
- walls of conventional cavity construction, or
- walls of rubble-filled construction.

3.3 Replastering is necessary to retain salts in the body of the wall and prevent damage to subsequent redecoration. The Certificate holder's Replastering Specification (see Detail Sheet 7) is satisfactory for this purpose.

### 4 Drying time

After treatment, a 230 mm, solid brick wall previously affected by rising damp should normally dry out in 6 to 12 months, provided normal heating is used during the winter months. A thicker wall may take longer. Where hygroscopic salts are present, the wall may not dry out completely but the replastering system will prevent damage to internal decorations.

## 5 Durability



Silicone masonry surface water repellents for masonry are known to be effective for 12 years. These products are applied to the surface of a wall, but a dpc application saturates the wall in depth. The process is expected to remain effective for at least 20 years.

## Installation

### 6 Procedure

6.1 Holes 12 mm in diameter are drilled at intervals of 120 mm or less along the selected mortar course, to depths for various wall thicknesses as shown in Table 1.

Table 1 Depth of hole required/application rate

	Wall thickness <sup>(1)</sup>			
	4½" (115 mm)	9" (230 mm)	13½" (345 mm)	18" (460 mm)
Drill hole depth (mm)	100	210	320	430
Application rate per 10 m wall length (litres) <sup>(2)</sup>	0.9	1.9	2.9	3.9

(1) For thicker walls the depth of hole should be to within 40 mm of the opposite face.

(2) Application rates for rubble, porous or highly-absorbent masonry may vary.

6.2 Solid walls of brick or stone should be drilled/treated from one side only in a single operation. The selected mortar course is drilled at the prescribed centres to the appropriate depth, (see Table 1). Where this is not possible advice should be sought from the Certificate holder.

6.3 For preference, cavity walls should be treated from both sides but, if the thickness of the individual

leaves permits, may be treated from one side. When undertaking treatment from one side, the drill must pass completely through the selected mortar course, then across the cavity and to a depth of 100 mm in the other leaf. The cavity must be clear before treatment.

6.4 If possible, in random stone and rubble infill walls, the mortar course should be followed at the appropriate selected level, or drillings may be made into porous stone. Where the variable thickness of stone walls and the possibility of rubble infill dropping and blocking injection holes causes difficulties, it may be necessary to drill to 50% of the wall thickness, from both sides at a corresponding height. Alternatively, additional holes should be drilled adjacent to obstructed holes to ensure that an adequate volume of the product is introduced to the wall.

6.5 The injection process consists of loading the product into the applicator gun or low-pressure pump and inserting the gun delivery tube into the full length of the predrilled hole. Each hole is backfilled fully with the product to within 10 mm of the surface by slowly squeezing the gun trigger. When treating cavity walls from one side it is essential that the holes in each leaf are filled.

6.6 Holes in the external wall surfaces are plugged with sand/cement mortar coloured to match the existing wall surface or with plastic plugs.

6.7 The treated walls are left for a period of at least 14 days to allow initial drying out. Internal plastering is applied in accordance with Detail Sheet 7 of this Certificate.

6.8 The original survey may have identified other possible causes of dampness, and measures to rectify these are taken as necessary.

## Technical Investigations

The following is a summary of the technical investigations carried out on Ultracure.

### 7 Tests

Tests were carried out by the BBA to determine:

- effectiveness against rising damp, generally to MOAT No 39 : 1988, Method 4.3.1.4
- total and active solids content to a BWPDA Damp-proofing DP4, Method 2.1
- specific gravity to BS 3900-A19 : 1998
- substantivity to MOAT No 39, Method 4.3.2
- storage stability.

### 8 Investigations

8.1 The manufacturing process was examined, and the raw material specifications, formulation and quality control procedures were established.

8.2 Existing data on the effectiveness of silicone-based products as a chemical dpc were examined.

8.3 Existing data on the effectiveness and durability of similar materials used as external surface water repellents were examined and an assessment was made of the durability of the injection material.

8.4 A visit was made to a site in progress to assess the practicability of installation.

8.5 A user-survey of owners of treated sites was carried out to assess the product's performance in use.

8.6 Assessments were made of the presence of odour and the materials available for replastering.

## Bibliography

BS 3900-A19 : 1998 *Methods of test for paints — Determination of density by the pyknometer method*

BS 6576 : 2005 *Code of practice for diagnosis of rising damp in walls of buildings and installation of chemical damp-proof courses*

MOAT No 39 : 1988 *The assessment of damp-proof course systems for existing buildings*

BWPDA DP4 *Methods of analysis for Damp-proof Course Fluids*

BWPDA Code of Practice COP3 : 1997 *Code of Practice for Installation of Chemical Damp-proof Courses*



On behalf of the British Board of Agrément

Date of Second issue: 7th December 2006

A handwritten signature in black ink, appearing to read 'G. A. Cooper'.

Chief Executive

*\*Original Detail Sheet issued on 4th November 2005. This amended version includes a change to the product name and an updated British Standard reference.*

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