



Timberwise (UK) Plc

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**Agrément
Certificate
No 03/3991**

Designated by Government
to issue
European Technical
Approvals

DRIWISE

Couche d'étanchéité pour murs par injection chimique
Feuchtigkeitssperre im Wandbereich

Product




• THIS CERTIFICATE RELATES TO DRIWISE, A CONCENTRATED SILANE-SILOXANE CREAM FOR INSERTION INTO MORTAR COURSES TO FORM A REMEDIAL DAMP-PROOF COURSE IN EXISTING WALLS, AND THE ASSOCIATED REPLASTERING.

• Installation of Driwise is carried out by Timberwise (UK) Plc generally in accordance with BS 6576 : 1985.

• Replastering may be necessary to prevent damage to subsequent redecoration. To avoid split responsibility, this should be conducted by the installer or his approved agent.

Regulations

1 The Building Regulations 2000 (as amended) (England and Wales)

 The Secretary of State has agreed with the British Board of Agrément the aspects of performance to be used by the BBA in assessing the compliance of remedial damp-proofing (walls) with the Building Regulations. In the opinion of the BBA, the use of Driwise in an existing building is not subject to these Regulations, but action to satisfy Requirement C4 and Regulation 7 may be necessary for a 'Material change of use' as defined in Regulation 5(a).

Requirement: C4

Resistance to weather and ground moisture

Comment:

The product satisfies the BBA rising damp test and adequately resists the passage of moisture.

Requirement: Regulation 7

Materials and workmanship

Comment:

The product is acceptable. See section 9 of this Certificate.

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2 The Building Standards (Scotland) Regulations 1990 (as amended)



In the opinion of the BBA, Driwise, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Technical Standards listed below.

Regulation:	10	Fitness of materials and workmanship
Standard:	B2.1	Selection and use of materials, fittings, and components, and workmanship
Comment:		The product is acceptable. See section 9 of this Certificate.
Regulation:	17	Resistance to moisture
Standard:	G2.6	Preparation of a site and resistance to moisture from the ground — Resistance to moisture from the ground
Comment:		The damp-proofing product satisfies the BBA rising damp test and adequately resists the passage of moisture.

3 The Building Regulations (Northern Ireland) 2000



In the opinion of the BBA, the use of Driwise in an existing building is not controlled by these Regulations, but action to satisfy Regulations B2 and C4 may be necessary for a 'Material change of use' under Regulation A9.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is acceptable. The product is odourless and does not give off harmful vapours. See section 9 of this Certificate.
Regulation:	C4	Resistance to ground moisture and weather
Comment:		The product satisfies the BBA rising damp test and adequately resists the passage of moisture.

4 Construction (Design and Management) Regulations 1994 (as amended) Construction (Design and Management) Regulations (Northern Ireland) 1995 (as amended)

Information in this Certificate may assist the client, planning supervisor, designer and contractors to address their obligations under these Regulations.

See sections: *6 Delivery and site handling (6.3), 12 Installation.*

Technical Specification

5 Description

5.1 Driwise is a concentrated viscous silane/siloxane emulsion cream, and is manufactured by a controlled batch-blending process. Regular quality control checks are carried out on the final product.

5.2 The Driwise cream is packed in foil cartridges for insertion into either an application gun or a hand-pressure application pump.

5.3 The process involves delivering a set amount of Driwise cream into a series of holes drilled into the mortar course and the subsequent replastering.

6 Delivery and site handling

6.1 Driwise is supplied in 600 ml foil cartridges.

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

6.3 The product is classified as Irritant under the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP3).

Design Data

7 General

7.1 Driwise is satisfactory for use in accordance with BS 6576 : 1985, in existing:

- (a) solid walls of brickwork, blockwork or masonry, up to 600 mm thick
- (b) walls of conventional cavity construction, or
- (c) walls of rubble-filled construction

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

7.2 Replastering may be necessary to retain salts in the body of the wall to prevent damage to subsequent redecoration. Timberwise (UK) Plc's *Replastering Specification* (see Appendix) is satisfactory for this purpose.

8 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.

9 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 Driwise process is expected to remain effective for at least 20 years.

Installation

10 Action with respect to flooring timbers

10.1 Where a suspended timber floor is independently supported on sleeper walls, with an effective damp-proof course and showing no signs of dampness, these need not be treated (see Figure 1).

10.2 Where a suspended timber floor is supported on joists and/or a wallplate bearing on, or embedded in, the wall, there is a possibility of decay, particularly where concealed timbers are in contact with the damp wall. The condition of these timbers should be ascertained and remedial action taken if necessary (see Figure 2).

10.3 If damage is limited to the joist ends, the floors may be re-formed, using sleeper walls or joist-hangers, to isolate the timbers from the damp wall (see Figure 3).

10.4 If the timbers are sound, the existing floor may be retained provided the damp-proof course is formed below the timber joists and/or wallplate (see Figure 4).

Figure 1 Suspended timber floor on sleeper wall

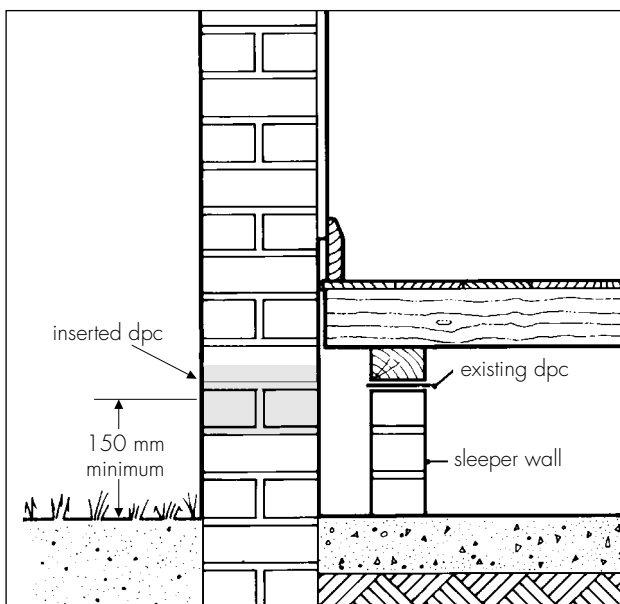


Figure 2 Check embedded timber for decay

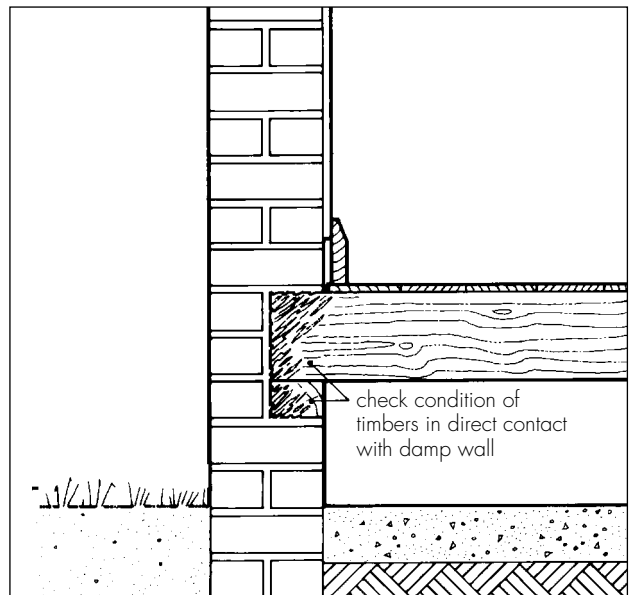


Figure 3 Isolation of timber joists from damp wall

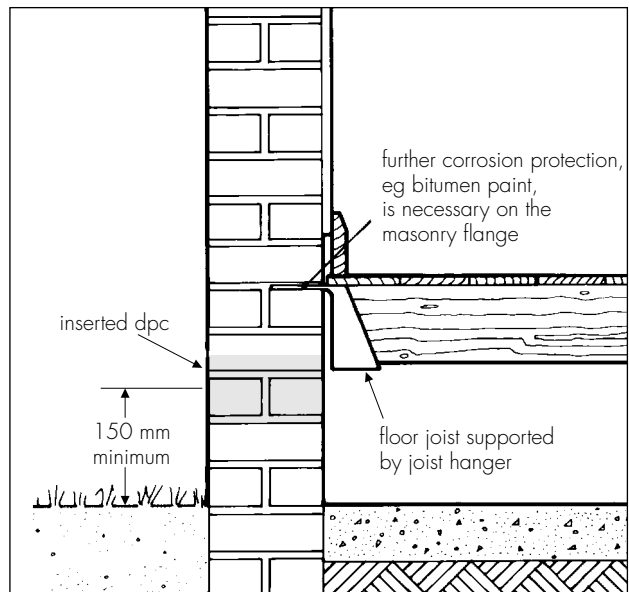
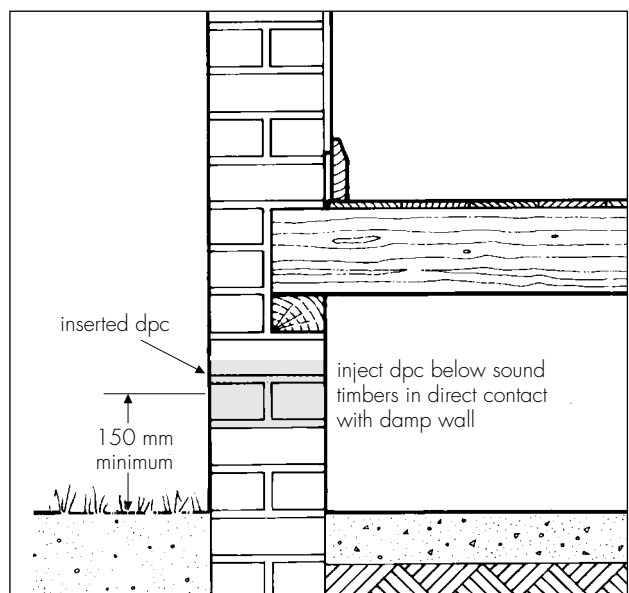


Figure 4 Inject dpc below wallplate



11 Preparation

11.1 The course to be treated is chosen so that the position of the horizontal damp-proof course complies, as far as is practicable, with the recommendations of BS 6576 : 1985, clauses 4.3 and 4.4 (see section 10.4 of this Certificate).

11.2 Internal walls on solid floors are treated as close to the floor as possible.

11.3 Complementary vertical damp-proof courses are positioned, where necessary, to isolate treated walls from the effects of rising damp in adjoining walls or to maintain continuity between horizontal damp-proof courses at different levels.

11.4 Internal plastering affected by hygroscopic salts is removed from the area to be treated to a height of 300 mm above the maximum level of the rising damp. Internal skirting and flooring is also removed, as necessary, to expose the area for treatment. Externally, the proposed damp-proof course line is exposed, where necessary, by removing any facing material.

12 Procedure

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

12.2 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.

Table 1 Depth of hole required

Wall thickness ⁽¹⁾	4½"	9"	13½"	18"
	(115 mm)	(230 mm)	(345 mm)	(460 mm)
Depth of hole (mm)	100	190	310	430

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

12.3 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.

12.4 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 Driwise is introduced to the wall. Drill holes can be capped with Driwise Injection Plugs.

12.5 The injection process consists of loading the Driwise cartridge into the applicator gun and inserting the gun delivery tube into the full length of the predrilled hole. Each hole is backfilled fully with Driwise 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.

13 General

Untreated walls

13.1 Untreated walls are isolated by the injection of a vertical dpc throughout the thickness of the wall. Vertical dpc's are also used to maintain continuity between horizontal dpc's at different levels.

Treated walls

13.2 Treated walls are left for a period of at least 14 days to allow initial drying out. Internal plastering is applied in accordance with the Appendix to this Certificate.

Bridging the damp-proof course

13.3 Particular care is taken to avoid bridging the damp-proof course, either internally or externally. Where external rendering has been removed, it is restored, ending in a bell casting above the injected damp-proof course.

External wall finish

13.4 Holes in the external wall surfaces are plugged with sand/cement mortar coloured to match the existing wall surface.

Other sources of dampness

13.5 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 Driwise.

14 Tests

Tests were carried out by the BBA to determine: effectiveness against rising damp using a method based on MOAT No 39 : 1988, Method 4.3.1.4
total and active solids content to a BBA test specification
specific gravity to BS 3900-A19 : 1998
flashpoint to BS 3900-A9 : 1986.

15 Investigations

- 15.1 The manufacturing process was examined, and the raw material specifications, formulation and quality control procedures were established.
- 15.2 Existing data on the effectiveness of silicone-based products as a chemical dpc were examined.
- 15.3 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.
- 15.4 A visit was made to a site in progress to assess the practicability of installation.

Bibliography

- BS 3900-A9 : 1986 *Methods of test for paints — Tests on liquid paints — Determination of flashpoint (closed cup equilibrium method)*
BS 3900-A19 : 1998 *Methods of test for paints — Determination of density by the pyknometer method*
BS 6576 : 1985 *Code of practice for installation of chemical damp-proof courses*
MOAT No 39 : 1988 *The assessment of damp-proof course systems for existing buildings*

Conditions of Certification

16 Conditions

16.1 This Certificate:

- (a) relates only to the product that is described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (d) is copyright of the BBA.

16.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, shall be construed as references to such publication in the form in which it was current at the date of this Certificate.

16.3 This Certificate will remain valid for an unlimited period provided that the product and the manufacture and/or fabricating process(es) thereof:

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;

(b) continue to be checked by the BBA or its agents; and

(c) are reviewed by the BBA as and when it considers appropriate.

16.4 In granting this Certificate, the BBA makes no representation as to:

- (a) the presence or absence of any patent or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the nature of individual installations of the product, including methods and workmanship.

16.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the installation and use of this product.



In the opinion of the British Board of Agrément, Drivise is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 03/3991 is accordingly awarded to Timberwise (UK) Plc.

On behalf of the British Board of Agrément

Date of issue: 21st February 2003

Chief Executive

Preparation

(1) Contaminated plaster should be removed to an area 300 mm beyond the damp staining.

Plaster

(2) The wall should be replastered using Renovating Plaster to the manufacturer's specification as stated in the British Board of Agrément Certificate or a sand/cement render with a Timberwise approved additive. UNDER NO CIRCUMSTANCES SHOULD ANY OTHER PREMIX PLASTER BE USED.

Application

(3) The bottom edge should be stopped 50 mm from the floor. Great care should be taken to ensure that all plaster droppings are removed and are not left behind the skirtings.

Finishing

(4) All skirtings and fixings should be treated with fungicide prior to fixing.

(5) The floor to wall joint should be sealed with a waterproof compound to prevent the upward movement of water vapour between the wall and the floor slab or damp-proof membrane in the floor slab. This waterproof coating should extend 100 mm up the wall and 50 mm across the floor slab (applies only to solid floors).

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For information about Agrément Certificate validity and scope, tel: Hotline 01923 665400, or check the BBA website.