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<http://www.agrement.co.za>

#### Validity

Users of any Agrément certificate should check its status: all currently valid certificates are listed on the website. In addition, check whether the certificate is [Active or Inactive](#).

The certificate holder is in possession of a confirmation certificate attesting to its status.

**SANS 10400:** *The application of the National Building Regulations*

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#### Subject:

**Gundle Anti-Termite Damp-Proof Course and Membrane**

#### Certificate holder:

**Novara Profile Extrusions (Pty) Ltd t/a Gundle API**

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**Damp-Proof Course**



**Membrane**

#### Description and use

The Gundle Anti-Termite Damp-Proof Course and Membrane is manufactured from three layers of co-extruded, low density polyethylene (LDPE). The membrane has a thickness of 250 µm and it is supplied in rolls of 30 m to 40 m long x 110 mm and 6 m wide. The co-extruded layers comprise:

- top layer - black low-density polyethylene film 95 µm thick
- middle layer - black low-density polyethylene film 95 µm thick
- bottom layer - green low-density polyethylene film 60 µm thick, with 0,15% permethrin insecticide.

Gundle Anti-Termite Damp-Proof Course and Membrane is suitable for installation as a damp proofing membrane and damp-proof course to prevent rising damp in superstructure walls, concrete surface beds and in other waterproofing applications. It can be used in all regions of South Africa for all types of occupancy classification (**SANS 10400: Table 1 of regulation A 20 (1)**).

This certificate and Agrément South Africa's assessment apply only to Gundle Anti-Termite Damp-Proof Course and Membrane that is manufactured by Gundle API. It is installed in accordance with the certificate holder's installation brochure and as described and illustrated in this certificate, and where the terms and conditions of certification are complied with.

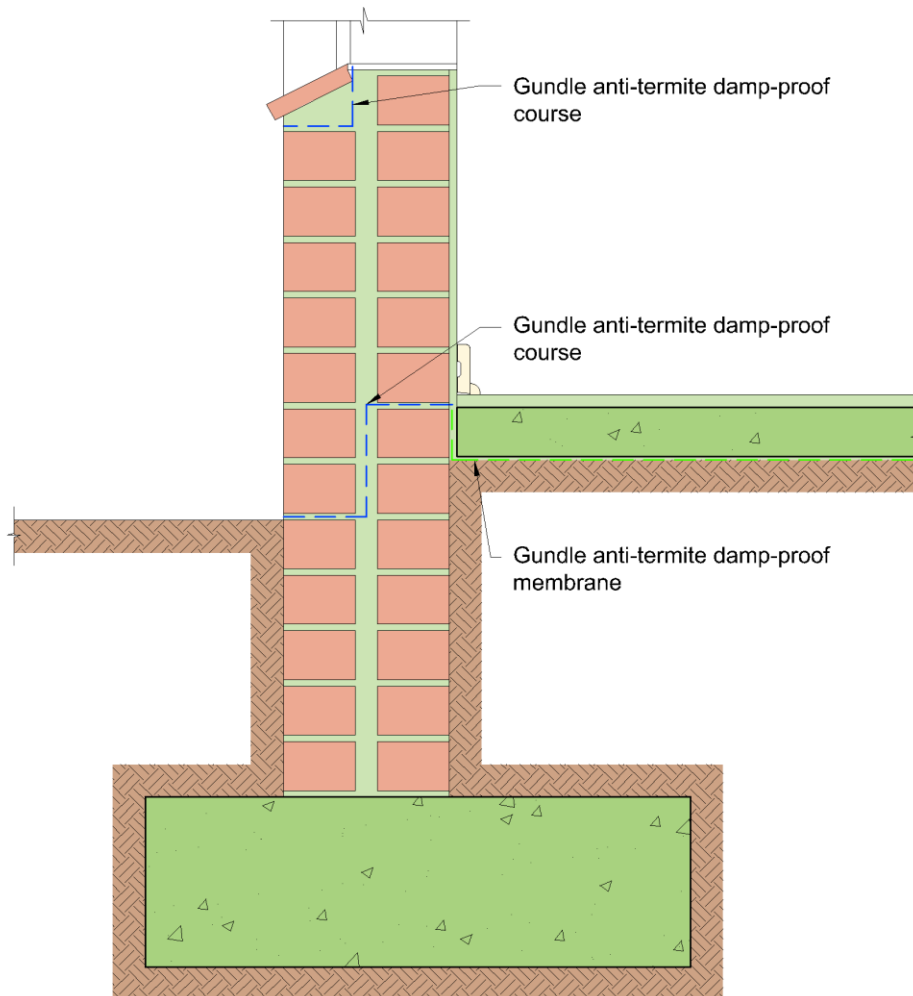


Figure 1: Cavity wall construction

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## PREAMBLE

This certificate is issued by Agrément South Africa in terms of the powers granted to it by the Minister of Public Works. This certificate:

- has been granted after a technical appraisal of the performance of the Gundle Anti-Termite Damp-Proof Course and Membrane for the [uses](#) covered by the certificate,
- is independent of any patent rights that may or may not subsist in the subject of the certificate, and
- does not relieve the user from the obligation to obtain the prior approval of the building authority concerned for the use of the subject.

Agrément South Africa considers that the quality and performance of the Gundle Anti-Termite Damp-Proof Course and Membrane will be satisfactory, provided that the requirements stipulated in this certificate are adhered to. However, Agrément South Africa does not on behalf of itself, or the State, or any of its employees or agents guarantee such quality or performance.

Responsibility for compliance with the requirements of this certificate and the quality of the finished product resides with the certificate holder.

No action for damages, or any other claim whatsoever, lies against Agrément South Africa, its members, the State or any of its employees should the said material fail to comply with the standard set out in this certificate.

Interested parties or users who are in any doubt about any detail or variation should contact [Agrément South Africa](#).

The validity of this certificate is reviewed every three years. The certificate shall remain valid as long as Agrément South Africa is satisfied that:

- the certificate holder complies with the general and specific conditions of certification and the technical requirements stipulated in the certificate
- the performance-in-use of the subject is acceptable
- any changes in building legislation, regulations, relevant standards or Agrément performance criteria have not invalidated the technical assessment which formed the basis of certification.

Agrément South Africa reserves the right to withdraw the certificate at any time, should reasonable cause exist.

Notices affecting the validity of this certificate will be published in the *Government Gazette*.

## PART 1: CONDITIONS OF CERTIFICATION

### Good building practice as discussed in:

- the supplement to certificates, by [Agrément South Africa](#)
- the *Home building manual parts 1, 2 & 3* issued by the National Home Builders Registration Council (NHBC)

The Gundle Anti-Termite Damp-Proof Course and Membrane as described in this certificate must be:

- manufactured by the certificate holder
- installed in accordance with:
  - the technical description set out in [Part 3](#)
  - the certificate holder's installation manual
  - good building practice.

Any change to the material formulation, the production process, or the installation techniques set out in the certificate and certificate holder's brochure could result in various aspects of the performance of this product no longer complying with Agrément South Africa's performance criteria. Any change not authorised by Agrément South Africa in writing prior to its implementation will invalidate this certificate and the certificate can then not be used to demonstrate compliance with the National Building Regulations.

### General conditions

#### Marking

The layer of Gundle Anti-Termite Damp-Proof Course and Membrane is marked with:

- the trade name printed on the roll
- the batch number
- the date of manufacturing
- Agrément identification logo and certificate number as illustrated in this certificate

The packaged rolls are marked with:

- the works order number
- the roll number
- Agrément identification logo and certificate number as illustrated in this certificate
- storage recommendations.

#### Validity

The continued validity of this certificate is subject to a satisfactory review by Agrément South Africa every three years.

#### Quality monitoring

The certificate holder is required to participate in Agrément South Africa's post-certification quality-management scheme, which requires:

- that the certificate holder shall continuously maintain and implement the quality management system approved by

### Gundle Anti-Termite Damp-Proof Course and Membrane

Tested and approved fit for purpose for use as a roofing radiant barrier when used as specified in

**CERTIFICATE 2014/468**



Agrément South Africa in the assessment of the Gundle Anti-Termite Damp-Proof Course and Membrane.


- the co-operation of the certificate holder in facilitating post-certification quality monitoring by Agrément South Africa or its authorised agents.

### Reappraisal

- must be requested by the certificate holder prior to implementing changes to the product
- will be required by Agrément South Africa if there are changes to the National Building Regulations or to Agrément criteria.

This certificate may be withdrawn if the certificate holder or a registered licensee fails to comply with these requirements.

On behalf of the Board of Agrément South Africa

A handwritten signature in black ink, appearing to read 'M. Piya', is written over a horizontal line.

Chairperson

19 November 2014

## PART 2: ASSESSMENT

### Scope of assessment

The conventional aspects of the construction are subject to the rules of good building practice (typically as described and illustrated in Agrément South Africa's [Supplement to certificates](#) and in the *Home building manual Parts 1, 2 & 3* issued by the National Home Builders Registration Council), and must comply with the National Building Regulations.

This assessment applies to the innovative aspects of the Gundle Anti-Termite Damp-Proof Course and Membrane as described in Part 3. These aspects have been assessed as an integral part of a product that comprises both innovative and conventional aspects. The innovative aspects are:

- the use of the green low-density polyethylene with permethrin insecticide
- the use of the above as an under surface bed and damp-proofing membrane.

### Assessment

In the opinion of Agrément South Africa, the Gundle Anti-Termite Damp-Proof Course and Membrane as described in the certificate is suitable for the use specified (see page 1).

The performance-in-use of the product will be such that the membrane will satisfy:

- the requirements of the National Building Regulations stated in Table 1. Any regulation not specifically referred to is considered to be outside the scope of this certificate and must be applied by the local authority in the normal manner.
- Agrément South Africa's performance criteria.

Republic of South Africa. *National Building Regulations*, Government Notice R. 711, Government Gazette No 34586, Pretoria, South Africa, 9 September 2012

Agrément South Africa's detailed comments on the assessment are set out in Table 1, 2 and 3 below. Each aspect of performance was assessed by experts in that field.

### Compliance with the National Building Regulations

The innovative aspects of the Gundle Anti-Termite Damp-Proof Course and Membrane must comply with the National Building Regulations as set out in Table 1. Any regulation not specifically referred to is considered to be outside the scope of this certificate and must be applied by the local authority in the normal manner.

**Table 1: Compliance with National Building Regulations**

Aspects of performance	Opinion of Agrément South Africa	National Building Regulations satisfied
<b>Materials</b>	The quality and suitability of the materials are satisfactory.	The materials used in the Gundle Anti-Termite Damp-Proof Course and Membrane are deemed to satisfy the requirements of Regulation A13 (1) (a): Materials.

**Table 2: Performance**

Aspects of performance	Opinion of Agrément South Africa	Explanatory notes
<b>Membrane thickness</b>	Satisfactory	Specimen tested indicates that the specified film thickness is achieved.
<b>Breaking strength and elongation at break</b>	Satisfactory. <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"><b>SANS952: Polyolefin film for damp and waterproofing in buildings.</b></div>	Tested in accordance with the requirements of <b>SANS 952</b> as amended.
<b>Puncture resistance</b>	Satisfactory.	Tested in accordance with the requirement of <b>SANS 952</b> as amended.
<b>Resistance to tearing</b>	Satisfactory.	Tested in accordance with the requirements of <b>SANS 952</b> as amended.
<b>Water permeability and vapour transmission rate</b>	Satisfactory.	Meets the requirements of <b>SANS 952</b> as amended.
<b>Biological efficacy of soil insecticides</b>	Satisfactory. <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"><b>SANS5859: Pesticides- Biological efficacy of soil insecticides.</b></div>	Tested in accordance with the requirements of <b>SANS 5859</b> . None of the wooden specimens lying on top of the treated and untreated plastics sheets were attacked after 10 months. This is an aspect which will be examined during a period of two years.
<b>Durability</b>	Satisfactory.	Agrément South Africa’s opinion is based on all the above mentioned test results.



**Table 3: Quality management system**

Aspects of performance	Opinion of Agrément South Africa	Explanatory notes
<b>Quality management system</b>	Satisfactory. The certificate holder's quality management system complies with Agrément South Africa's requirements. If properly applied, the quality management system will ensure that acceptable standards are continuously maintained and implemented in the manufacture and installation of the membrane.	Agrément South Africa's requirements, based on <b>SANS 9001:2008</b> . <div data-bbox="983 456 1398 591" style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <b>SANS 9001:2008, Quality management systems-Requirements</b> </div>

## **PART 3: TECHNICAL DESCRIPTION**

### **General description**

The Gundle Anti-Termite Damp-Proof Course and Membrane is manufactured from three layers of co-extruded, low density polyethylene (LDPE). The membrane has a thickness of 250 µm and it is supplied in rolls of 30 m to 40 m long x 110 mm and 6 m wide.

### **Manufacture**

Gundle Anti-Termite Damp-Proof Course and Membrane is blow-extruded through a co-extruder. The extruder allows three layers of polyethylene film to be extruded at the same time, allowing for an equivalent product at a lesser thickness. This allows several types of raw materials to be combined in two or more layers, each layer performing a different function. The thickness tolerance is  $\pm 5\%$  with a nominal thickness of 250 µm. The upper surface of the material is black and the lower surface is green.

The rolls are then taken to a secondary process where printing and trimming takes place and wound into 30 m rolls. The rolls are marked as follows:

- the trade name printed on the roll
- the batch number
- the date of manufacturing
- Agrément identification logo and certificate number as illustrated in this certificate

### **Delivery and Handling**

The rolls are supplied in a sealed, clear protective sleeve, together with an insert detailing the roll specifications and storage, handling and installation requirements. All rolls are supplied on wooden pallets, stretch-wrapped and labelled.

### **Installation**

Gundle Anti-Termite Damp-Proof Course and Membrane can be used in various applications such as a damp-proof membrane and damp-proof course to prevent rising damp in superstructure walls, cavity wall construction, waterproofing of windows, parapet walls, etc. and is installed in accordance with the manufacturer's specifications and good building practice.

The surface on which Gundle Anti-Termite Damp-Proof Course and Membrane is to be laid must be leveled ensuring that there are no projections, stones etc. that could damage or puncture the membrane. The width of the rolls is such that the entire floor area can be covered without having to join membranes. Should joining become necessary, the membranes must overlap by a minimum of

150 mm and the lap sealed with a double-sided pressure-sensitive tape provided for the purpose by Gundle API-A Division of Novara Profile Extrusions (Pty) Ltd. Joining must be in strict accordance with the description set out in the Gundle API-A Division of Novara Profile Extrusions (Pty) Ltd brochure.

The Gundle Anti-Termite Damp-Proof Course and Membrane is taken under the damp-proof course at all edges. Care must be exercised to ensure that the membrane is not damaged during or after installation when reinforcing mesh is placed (if required), concrete etc. is placed. Any damage to the membrane must be sealed as recommended by Gundle API-A Division of Novara Profile Extrusions (Pty) Ltd.

### **Protection of the membrane**

Whenever practicable, the rolls should be stored under cover and when removed from the packaging the membrane should be installed and construction completed as soon as is practical to prevent damage to the membrane.

### **Storage**

On site, the Gundle Anti-Termite Damp-Proof Course and Membrane should be kept out of direct sunlight and stored on a raised, flat surface free of sharp protrusions.

## Drawings

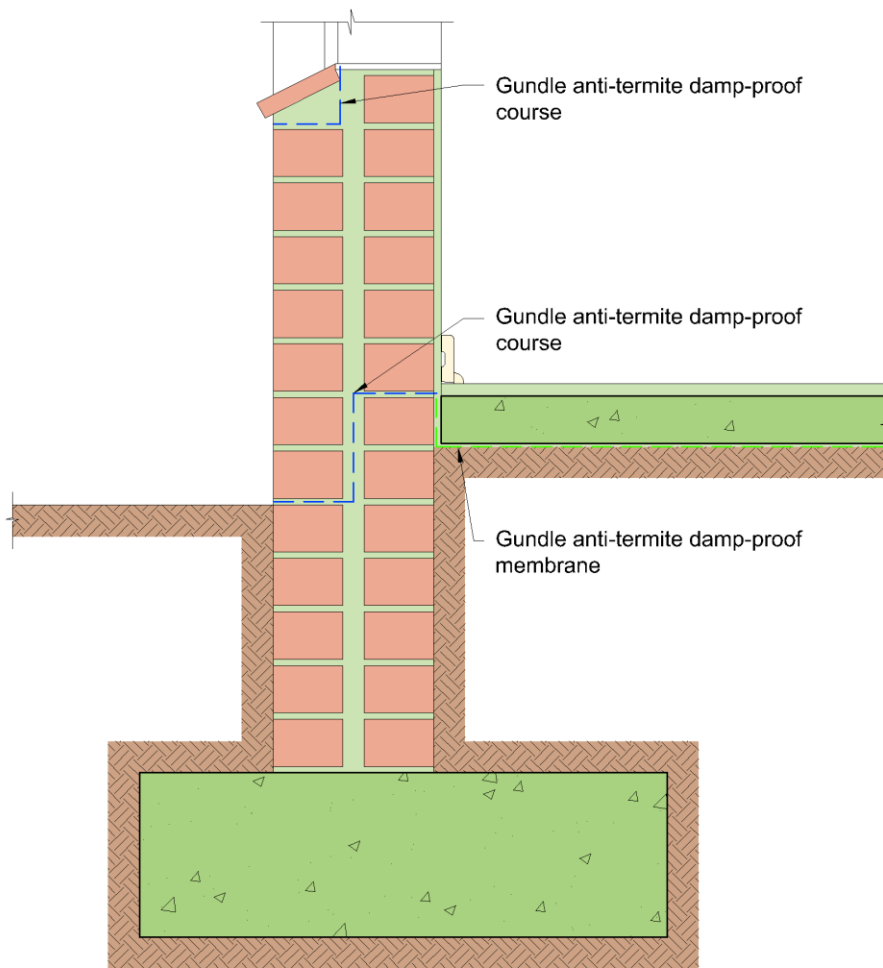


Figure 1: Cavity wall construction

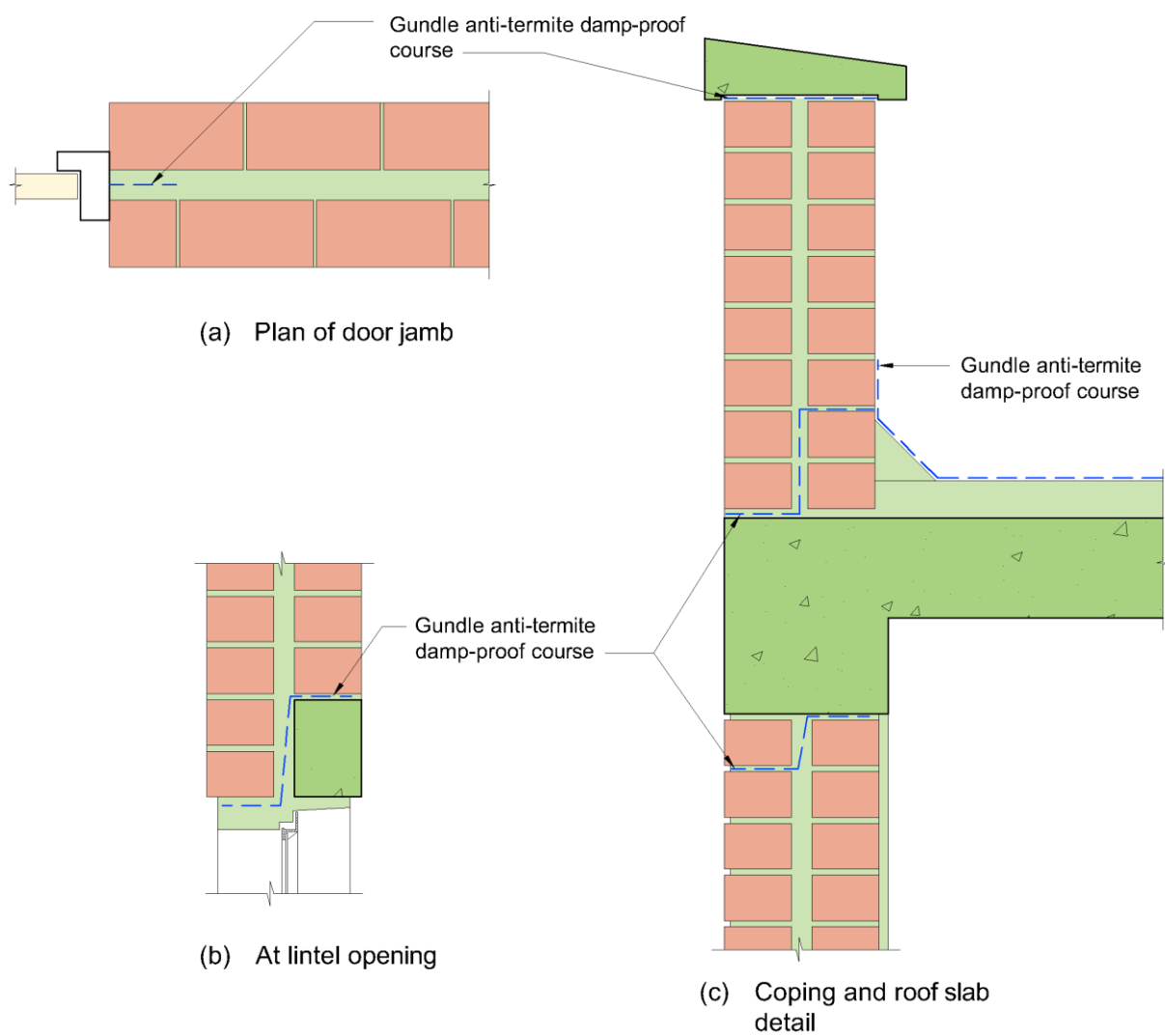
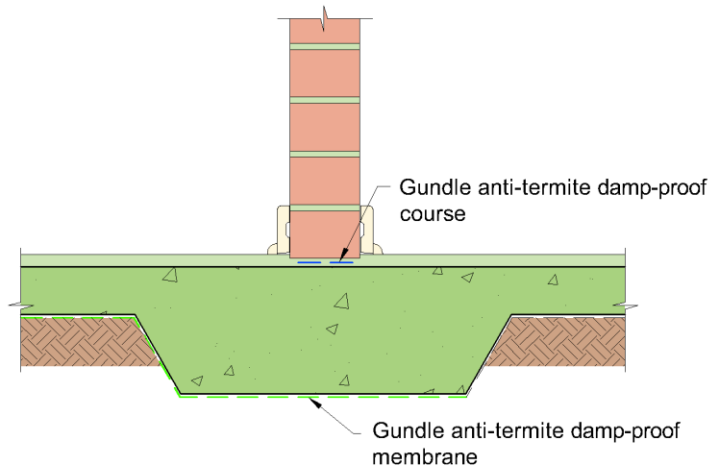
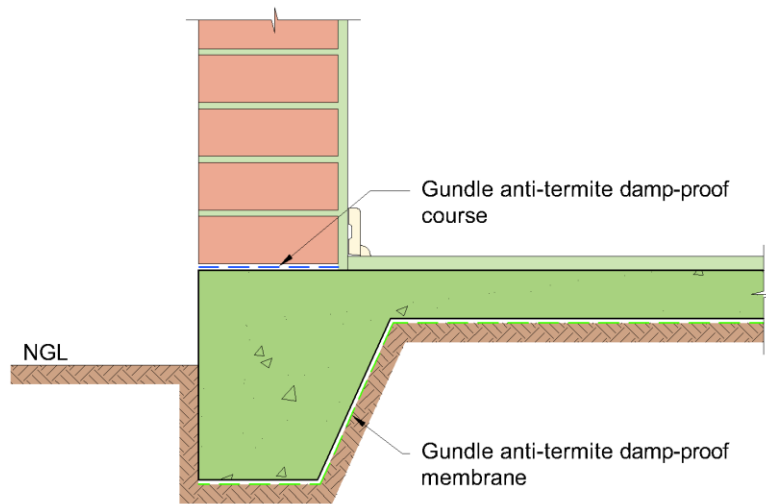


Figure 2: Cavity wall, plan of door jamb, coping and roof slab detail



(a) Internal wall foundation



(b) External wall foundation

Figure 3: Typical foundation details

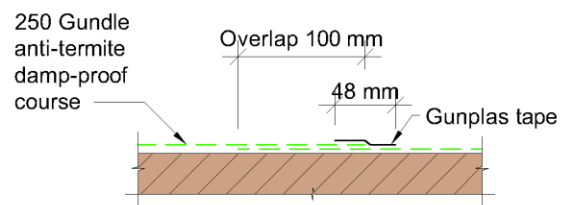


Figure 4: Installation of co-ex membranes