



## Isola AS, Platon Factory

Platon Factory  
Leinfossveien 5  
N-3678 Notodden  
Norway

Tel: 00 47 35 57 57 00 Fax: 00 47 35 02 75 55  
e-mail: isola@isola.no  
website: www.isola.com

(21.9)	Ln6
--------	-----

**Agrément  
Certificate  
No 01/3823**

Designated by Government  
to issue  
European Technical  
Approvals

## SYSTEM PLATON

Soutien étanche  
Wasserdichte Stütze

## Product



• THIS CERTIFICATE REPLACES AND EXTENDS CERTIFICATE No 92/2835 AND RELATES TO SYSTEM PLATON, MOULDED HDPE SHEETS AND FIXING/ SEALING MATERIALS DESCRIBED IN THE ACCOMPANYING DETAIL SHEETS AND USED FOR DAMP-PROOFING IN NEW OR EXISTING BUILDINGS.

• The system is marketed in the UK by Triton Chemical Manufacturing Co Ltd, Triton House Lyndean Industrial Estate 129 Felixstowe Road Abbeywood, London SE2 9SG  
Tel: 020 8310 3929  
Fax: 020 8312 0349  
e-mail: [info@triton-chemicals.com](mailto:info@triton-chemicals.com)  
website: [www.triton-chemicals.com](http://www.triton-chemicals.com)

*These Front Sheets must be read in conjunction with the relevant accompanying Detail Sheets, which provide information specific to membrane systems.*

## Regulations — Detail Sheet 1

### 1 The Building Regulations 2000 (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 waterproofing-tanking (walls) with the Building Regulations. In the opinion of the BBA, the use of System Platon in new constructions, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements. In the opinion of the BBA, the use of System Platon 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 system adequately resists the passage of moisture. See marked section of the accompanying Detail Sheets.

Requirement: Regulation 7

Materials and workmanship

Comment:

The system is acceptable. See marked section of the accompanying Detail sheets.

# Electronic Copy

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



In the opinion of the BBA, the use of System Platon in new constructions, if used in accordance with the provisions of the Certificate, will satisfy or contribute to satisfying the various Regulations and related Technical Standards as listed below. In the opinion of the BBA, the use of System Platon in an existing building is not controlled by these Regulations, but action to satisfy Regulations 10 and 17 may be necessary for a 'Change of use of building' as defined in Section 6 of the Building (Scotland) Act 1959. See definition of a 'building' in Regulation 2 of these Regulations.

Regulation:	10	Fitness of materials
Standard:	B2.1	Selection and use of materials and components
Comment:		The system is acceptable. See marked section of the accompanying Detail Sheets.
Regulation:	17	Resistance to moisture
Standard:	G2.6	Resistance to moisture from the ground
Standard:	G3.1	Resistance to precipitation
Comment:		The system adequately resists the passage of moisture. See marked section of the accompanying Detail Sheets.

## 3 The Building Regulations (Northern Ireland) 2000



In the opinion of the BBA, the use of System Platon in new constructions, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations as listed below. In the opinion of the BBA, the use of System Platon in an existing building is not controlled by these Regulations, but action to satisfy Regulations B2 and C5 may be necessary for a 'Material change of use' under Regulation A9.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The system is acceptable. See marked section of the accompanying Detail Sheets.
Regulation:	C4	Resistance to ground moisture and weather
Comment:		The system adequately resists the passage of moisture. See marked section of the accompanying Detail Sheets.

## 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: 1 *Description* (1.2) and 10 *Walls and ceilings* of the accompanying Detail Sheets.

## Technical Specification

### 5 Manufacture and quality control

5.1 The membranes are formed in a continuous process in which high-density polyethylene (PE-HD) is extruded into sheets and the domes impression formed.

5.2 The final products are visually inspected and tested for:

weight per unit area  
dimensional accuracy  
compressive strength and/or tensile strength.

### 6 Delivery and site handling

6.1 The membranes are delivered to site in rolls secured with outer wrapping bearing the product and manufacturer's name and the BBA logo bearing the number of this Certificate.

6.2 Rolls should be stored on end, under cover and protected from sharp objects, sunlight and high temperatures.

## Conditions of Certification

### 7 Conditions

7.1 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.

7.2 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.

7.3 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.

7.4 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.

7.5 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, System Platon is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 01/3823 is accordingly awarded to Isola AS, Platon Factory.

On behalf of the British Board of Agrément

Date of issue: 9th October 2001

A handwritten signature in black ink, appearing to read 'P. C. Newson', is written over a light grey background.

Chief Executive

# Electronic Copy

---

**British Board of Agrément**  
P O Box No 195, Bucknalls Lane  
Garston, Watford, Herts WD25 9BA  
Fax: 01923 665301

©2001

e-mail: [mail@bba.star.co.uk](mailto:mail@bba.star.co.uk)  
website: [www.bbacerts.co.uk](http://www.bbacerts.co.uk)



For technical or additional  
information, tel: 01923 665300.  
For information about Agrément  
Certificate validity and scope, tel:  
**Hotline: 01923 665400**



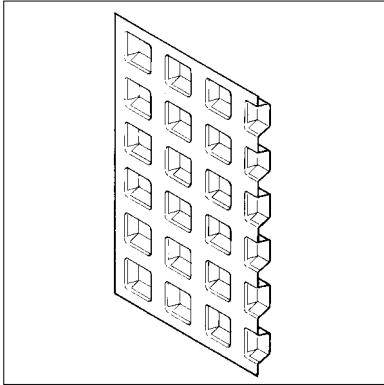
Isola AS, Platon Factory

Certificate No 01/3823

DETAIL SHEET 2

PLATON MULTI

## Product



• THIS DETAIL SHEET REPLACES AND EXTENDS DETAIL SHEET 2 OF CERTIFICATE No 92/2835 AND RELATES TO PLATON MULTI, A MOULDED PE-HD SHEET AND FIXING/SEALING MATERIALS.

• The system is used on walls, floors and ceilings, above or below ground, in new construction or in existing buildings over a contaminated or damp background, to support a dry lining or flooring.

• The product may also be used in conjunction with Platon P20 and Platon Plaster Base in sealed systems.

• The system should be installed by competent contractors.

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

## Technical Specification

Figure 1 Platon Multi

### 1 Description

1.1 Platon Multi is a blue, high-density polyethylene (PE-HD) membrane, moulded to form raised domes at 20 mm centres (see Figure 1).

1.2 Characteristics of the membrane are:

thickness (mm)	0.5
dome height (mm)	5
weight per unit area (kgm <sup>-2</sup> )	0.48
roll size (m) <sup>(1)</sup>	2.05 x 20
weight of roll (kg)	20 approx
air gap volume (lm <sup>-2</sup> )	3.3

(1) Includes a 50 mm dome-free area for overlapping sheets.

1.3 Ancillary items used with the membranes include:

Platon Brick Plug — a plastic, pre-drilled plug for fixing membrane to brick and stone (see Figure 2)

Platon Sealing Tape — butyl rubber tape for sealing joints in the membrane and for use with Platon Wall/Floor Junctions

Platon Sealing Rope — butyl rubber beading for sealing joints in the membrane, sealing the membrane around pipes and openings, joining floor and wall membranes, and to form a gasket between the brick plug and membrane

Platon Sealer — butyl rubber sealant for sealing the membrane around pipes and openings

Platon Wall/Floor Junction — right-angled membrane strip for sealing junctions between walls and floors, and for sealing joints at corners

Platon Overtape — 100 mm wide butyl rubber tape, backed with non-woven polypropylene for sealing joints in the membrane.

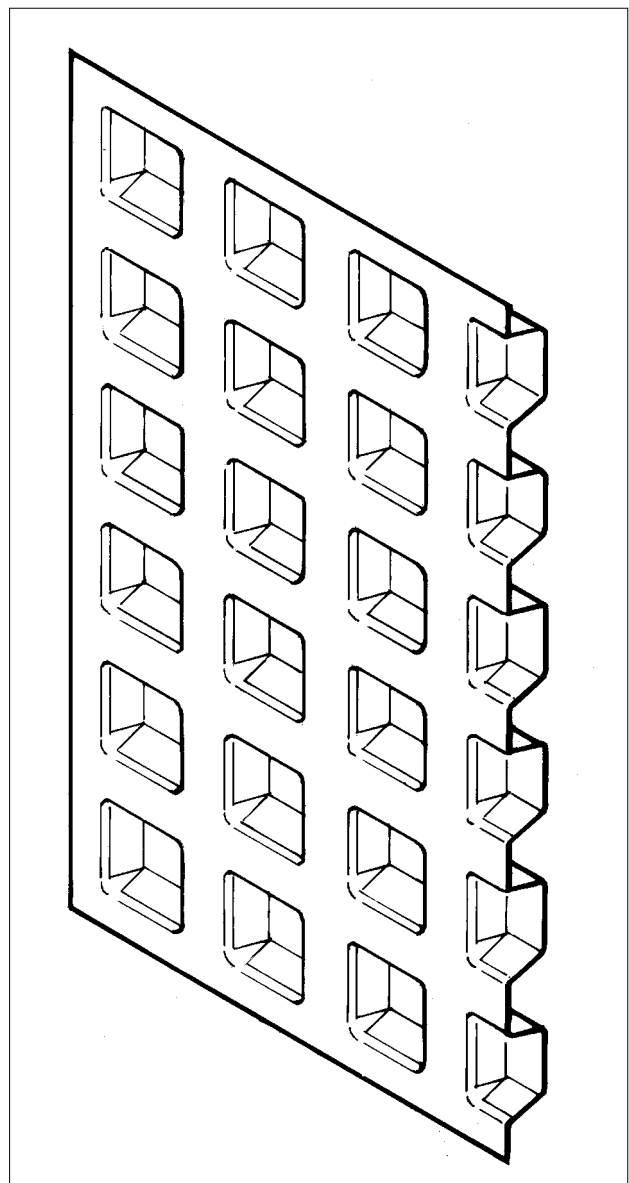
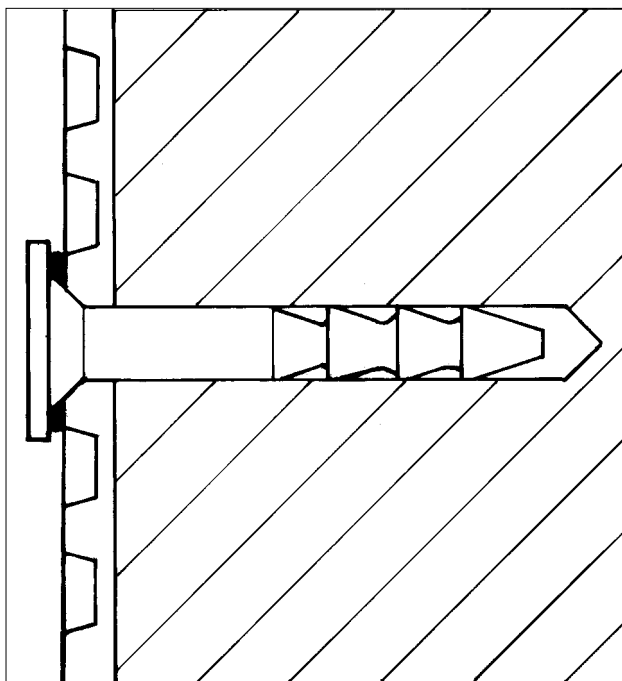


Figure 2 Platon Brick Plug



## Design Data

### 2 General

2.1 Platon Multi is satisfactory as a support for a dry lining, screed or flooring, over internal faces of walls and floors of all types of existing construction, in the following situations:

- damp walls and floors in underground situations subject to high groundwater levels, and perennial moisture
- on vaulted ceilings of archways or cellars subject to dripping water
- with a remedial dpc system where the walls and floors have a high salt content, and/or it is necessary to complete the installation immediately without allowing a period for initial drying
- over walls and floors which have a friable or painted surface, are contaminated with oil or mould, or have a high salt content
- as a waterproofing or 'tanking' in areas subject to vibration.

2.2 Depending on the application required and the site conditions, Platon Multi membrane may be used as:

- an underfloor damp-proof membrane
- a dry-lining for walls, ventilated into the room via aeration slots at the top and bottom of the wall
- a completely sealed system covering floor, wall and ceiling with provision made for disposing of water build-up behind the membrane via a sump and pump.

2.3 The system is satisfactory for use in Type C (drained protection) structural concrete constructions

in accordance with BS 8102 : 1990, clause 3.2.4.

2.4 Under normal operating conditions the membrane is not affected by underfloor heating.

### 3 Resistance to water and water vapour



3.1 The membrane is water resistant and has a high resistance to water vapour. Consequently the measures described in the *Installation* part of this Detail Sheet must be followed to ensure that the membrane acts as a drainage layer and that there is no excessive build-up of water behind the system.

3.2 All joints and fixings must be sealed with Platon sealing products, and drainage channels and gullies, or sumps and pumps should be installed as necessary to disperse excess or standing water.

3.3 Floors should have a drainage outlet point. There should be a fall towards the outlet point or a drainage channel made around the perimeter of the floor, to ensure water can flow to the outlet.

### 4 Resistance to salt transfer

The system provides an effective barrier to the transmission of salts or other contaminants from the substrate.

### 5 Resistance to puncture, impact and loading

5.1 The membrane has a high resistance to puncture and will not be damaged by normal foot traffic during installation or while laying concrete or screeding to BS 8204-1 : 1999.

5.2 The system can support the long-term imposed loadings defined in BS 6399-1 : 1996, Table 1, categories A, C1 and C2, and situations with similar loadings in category B, without undue deformation.

### 6 Wall-mounted fittings

Wall-mounted fittings (apart from lightweight items such as framed pictures) should be fixed where possible into battens, whose position and number of support fixings into the loadbearing structure are predetermined. Only in exceptional circumstances should fittings be fixed through the membrane and lining board to the loadbearing structure behind, using proprietary fixings. Holes made in the membrane must be filled with a flexible sealant, such as Platon Sealer.

### 7 Durability



7.1 Under normal conditions of use the system will provide an effective barrier to the transmission of salts, liquid water and water

vapour for the life of the structure in which it is incorporated.

7.2 Regular maintenance of all gullies, sumps and pumps must be conducted to ensure that a build-up of water does not occur behind the membrane.

## Installation

### 8 Survey in damp conditions

8.1 Where conditions are damp, a full survey is necessary by a specialist surveyor to diagnose the cause and to establish if treatment is required.

8.2 If rising damp is found, a remedial treatment is conducted in accordance with the relevant Agrément Certificate, BS 6576 : 1985 and the British Wood Preserving and Damp-proofing Association (BWPDA) Code of Practice 1997.

8.3 Appropriate remedial measures are taken to rectify major causes of damp conditions or water ingress, and to repair structural defects.

### 9 Surface preparation

9.1 When used in new constructions the concrete base must be laid in accordance with BS 8204-1 : 1999. If a board covering is to be laid directly on the membrane, the concrete base must have a surface regularity of at least SR 2<sup>(1)</sup>, as specified in BS 7916 : 1998 and described in BS 8204-1 : 1999.

(1) Maximum permissible departure of 5 mm from the underside of a 3 m straight edge, resting in contact with the floor.

9.2 Any unsound plaster, render or screed should be removed to expose the substrate which is then cleaned with a stiff brush to remove loose material, laitance, salt residue, mould or adhesive. If mould is present the substrate should be treated with a fungicidal wash.

9.3 Uneven substrates should be dubbed out with a cement-sand (1:4) render or screed, to the tolerance described in section 9.1. They should be allowed to set before the Platon Multi membrane is fixed.

### 10 Walls and ceilings

#### General

10.1 The membrane should always be used with the flanged edge positioned in front of and overlapping the previously installed membrane width. Joints with the flanged edge are sealed using Platon Sealing Tape, while stud-to-stud joints (without the flanged edge) are sealed by overlapping the membrane by a minimum of 200 mm and using Platon Sealing Rope.

10.2 Fixings are made through the domes into holes drilled through the membrane. Platon Brick Plugs, to which Platon Sealing Rope has been

applied around the rim, are inserted into the holes and tapped flush with the membrane. The Platon Sealing Rope forms a sealing gasket between the plug and membrane.

10.3 Spacing between fixings will depend on the application and the nature of the substrate, but should be kept to a maximum of 600 mm.

10.4 Preservative treated timber battens of minimum dimensions 25 mm by 38 mm are fixed into the plug's fixing hole using suitable screws with a maximum screwing-in depth of 25 mm plus the batten depth. If required, Platon Sealer is injected into the fixing holes to reduce the risk of water penetration.

#### Ceilings

10.5 Ceilings to be covered should always have a fall, as per vaulted cellar constructions, to ensure water does not build up against the membrane or a joint. In addition to the requirements given in section 10.8, on ceilings the vertical drop between the ends of the two membrane sheets for horizontal overlaps should be a minimum of 100 mm.

10.6 The membrane should be adequately supported, to avoid the possibility of ponding.

10.7 At the end walls of vaulted constructions the membrane must be turned down onto the end wall by a minimum 300 mm (ie 1.5 domes). The membrane is mitred as necessary to fit the curve of the ceiling, and the joint sealed with Platon Sealing Tape or Rope. The wall membrane should be cut into the curve of the ceiling, fixed in front of the ceiling membrane, and the gap sealed with Platon Sealing Tape, Rope or Platon Sealer.

#### Walls

10.8 Installation of the membrane is commenced at the top of the construction. The membrane may require initial fixing on a ceiling or along the upper edge of a wall, prior to final fixings along batten runs. For joints where the flanged edge is not used, the two membrane sheets are overlapped by a minimum of 200 mm, and for horizontal joints the lower sheet is always positioned in front of the upper sheet.

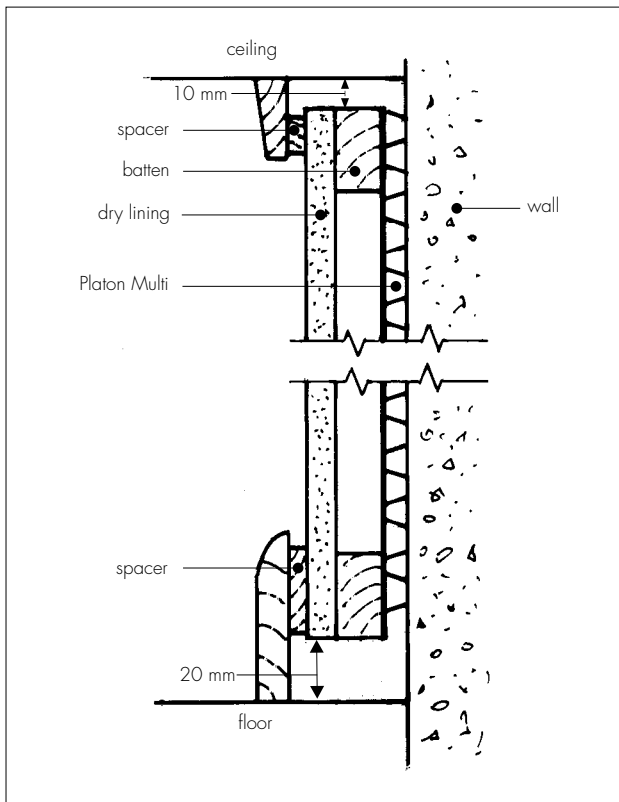
10.9 The membrane is installed over windows and then cut away to expose them. For doors and other obstructions, the membrane is installed up to the perimeter. In both cases the gaps are sealed with Platon Sealing Tape or Rope.

10.10 Power cables, points and light switches should preferably be remounted in front of the membrane.

10.11 In cases where a 'sealed' system is not being installed, the build-up of water vapour behind the membrane is controlled by venting into the room. To facilitate this, the membrane is installed with a 10 mm gap at the top, and a

20 mm gap at the bottom of the wall. Spacers measuring 3 mm by 200 mm are then fixed at 600 mm centres behind the skirting board and ceiling coving to ensure a ventilation gap (see Figure 3). Alternatively, a proprietary ventilated skirting board or ceiling coving may be used.

Figure 3 Wall detail with dry lining



## 11 Floors

11.1 The membrane is rolled out 'domes down' over the floor, and consecutive membrane widths are laid so the flanged edge overlaps the first sheet by two domes. Joints are sealed using Platon Sealing Tape. Other joints are oversealed using Platon Overtape.

11.2 The membrane is cut within 5 mm to 10 mm of any pipes and services in the floor, and the gap filled with Platon Sealing Rope. A patch of membrane is overlaid and sealed to the service with Platon Sealing Rope, and its circumference sealed with Platon Sealing Tape.

11.3 Fixings must not be applied through the floor membrane.

11.4 Where appropriate, at wall/floor junctions and corners of the installation, the membrane should be cut flush and the gap between the wall

and floor membranes sealed with Platon Wall/Floor Junction. Each should be sealed with runs of tape. Alternatively, where a wall membrane is not being installed the floor membrane may be turned up by 100 mm at the wall and cut flush with the top of the finished floor.

11.5 At corners, where membranes are not installed continuously from one surface to the next, they should be finished at the corner on each surface, and sealed together using Platon Wall/Floor Junction and Platon Sealing Tape.

## 12 Dry lining

Gypsum plasterboard to BS 1230-1 : 1985(1994), or similar dry lining boards covered by a current Agrément Certificate, are fixed to the battens with galvanized screws or nails, positioned a minimum of 12 mm from the edge of the board. Care should be taken to ensure that penetration of the plasterboard screws or nails is less than batten depth to avoid puncturing the membrane.

## 13 Floor membrane coverings

13.1 If required, expanded polystyrene insulation boards, minimum density  $30 \text{ kgm}^{-3}$ , are laid over the membrane.

13.2 Suitable tongue-and-groove flooring board panels should be selected in accordance with BS 7916 : 1998, and loose-laid over the membrane to within 10 mm of the walls. The panels are staggered and the joints sealed with PVA adhesive to BS 4071 : 1966(1988).

13.3 Alternatively, the membrane is covered by concrete or screed 50 mm thick in accordance with BS 8204-1 : 1999. Care should be taken to ensure the membrane is not displaced when placing the concrete or screed. The concrete screed should be reinforced to inhibit shrinkage cracks.

13.4 Proprietary screeds may also be considered which can generally be laid at thicknesses less than 50 mm, but use of these products with the membrane has not been assessed by the BBA.

## 14 Finishing works

After the system has been installed and the walls dry-lined, permanent decorations, such as vinyl papers or oil paints, may be applied. Temporary permeable decorations (necessary with traditional, cement-based waterproofers) are not necessary for use with this system.

## Technical Investigations

The following is a summary of the technical investigations carried out on Platon Multi membrane.

### 15 Tests

15.1 Tests were carried out to determine:

- thickness
- resistance to long-term loading
- nail-tear resistance.

15.2 Independent test reports were examined and assessed, relating to:

- melt flow index
- short-term compression loading
- tensile strength and elongation at break.

### 16 Investigations

16.1 A reassessment was made of the data on which Certificate No 92/2835 was based.

16.2 Regular routine surveillance visits have been made to the manufacturing site under Certificate No 92/2835.

16.3 Regular independent test reports conducted by the Norwegian National Institute of Technology have been received by the BBA under Certificate No 92/2835.

16.4 An assessment was made of the scope of use and durability of the system in relation to the generic properties of the membrane.

## Bibliography

BS 1230 *Gypsum plasterboard*

BS 1230-1 : 1985(1994) *Specification for plasterboard excluding materials submitted to secondary operations*

BS 4071 : 1966(1988) *Specification for polyvinyl acetate (PVA) emulsion adhesives for wood*

BS 6399 *Loading for buildings*

BS 6399-1 : 1996 *Code of practice for dead and imposed loads*

BS 6576 : 1985 *Code of practice for installation of chemical damp-proof courses*

BS 7916 : 1998 *Code of practice for the selection and application of particleboard, oriented strand board (OSB), cement bonded particleboard and wood fibreboards for specific purposes*

BS 8102 : 1990 *Code of practice for protection of structures against water from the ground*

BS 8204 *Screeds, bases and in-situ floorings*

BS 8204-1 : 1999 *Concrete bases and cement sand levelling screeds to receive floorings. Code of Practice*

British Wood Preserving and Damp-proofing Association Code of Practice *The Installation of Remedial Damp-proof Courses in Masonry Walls* : January 1997



On behalf of the British Board of Agrément

Date of issue: 9th October 2001

Chief Executive



# Electronic Copy

---

**British Board of Agrément**  
P O Box No 195, Bucknalls Lane  
Garston, Watford, Herts WD25 9BA  
Fax: 01923 665301

©2001

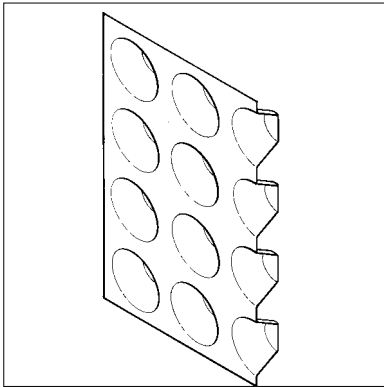
e-mail: [mail@bba.star.co.uk](mailto:mail@bba.star.co.uk)  
website: [www.bbacerts.co.uk](http://www.bbacerts.co.uk)



For technical or additional  
information, tel: 01923 665300.  
For information about Agrément  
Certificate validity and scope, tel:  
**Hotline: 01923 665400**

## PLATON P20 MEMBRANE

## Product



• THIS DETAIL SHEET REPLACES AND EXTENDS DETAIL SHEET 3 OF CERTIFICATE No 92/2835 AND RELATES TO PLATON P20 MEMBRANE, A MOULDED PE-HD SHEET AND FIXING/SEALING MATERIALS.

• The system is used on walls and floors above and below ground that require a large air gap for a high drainage volume to support dry lining or flooring.

• The system may also be used in conjunction with Platon Multi and Platon Plaster Base in sealed systems.

• The system should be installed by competent contractors.

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 The Platon P20 Membrane is a black, high-density polyethylene (PE-HD) sheet, moulded to form raised domes at 60 mm centres (see Figure 1).

1.2 The Platon P20 Membrane is available in sheet or roll form, and has characteristics of:

thickness (mm)	1.0
dome height (mm)	20.0
weight per unit area (kgm <sup>-2</sup> )	0.95
sheet size (m)	1.36 x various lengths
roll size (m)	1.36 x 19.5
weight of roll (kg)	26 approx
air gap volume (lm <sup>-2</sup> )	14

1.3 Ancillary items used with the membranes are:

Platon Brick Plug — plastic, pre-drilled plug for fixing membrane to brick and stone (see Figure 2)

Platon Sealing Tape — butyl rubber tape for sealing joints in the membrane and for use with Platon Wall/Floor Junction

Platon Sealing Rope — butyl rubber beading for sealing joints in the membrane, sealing the membrane around pipes and openings, and to form a gasket between the brick plug and membrane

Platon Sealer — butyl rubber sealant for sealing the membrane around pipes and membrane

Platon Wall/Floor Junction — right-angled membrane strip for sealing junctions between walls and floors, and for sealing joints at corners.

Platon Overtape — 100 mm wide butyl rubber tape backed with non-woven polypropylene for sealing joints in the membrane.

Figure 1 Platon P20

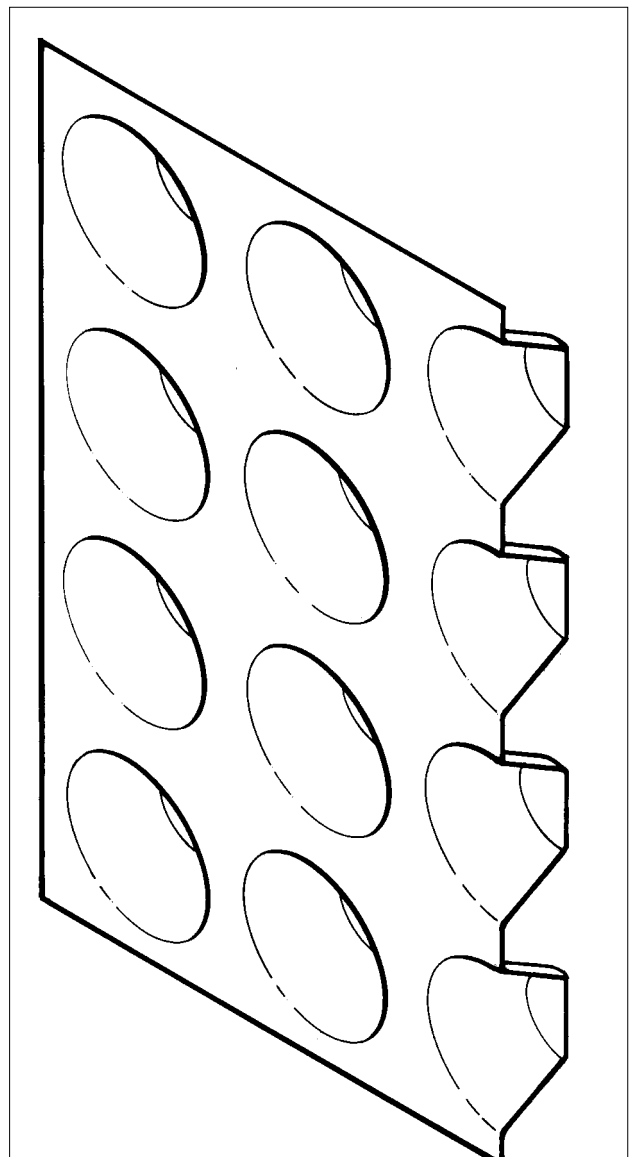
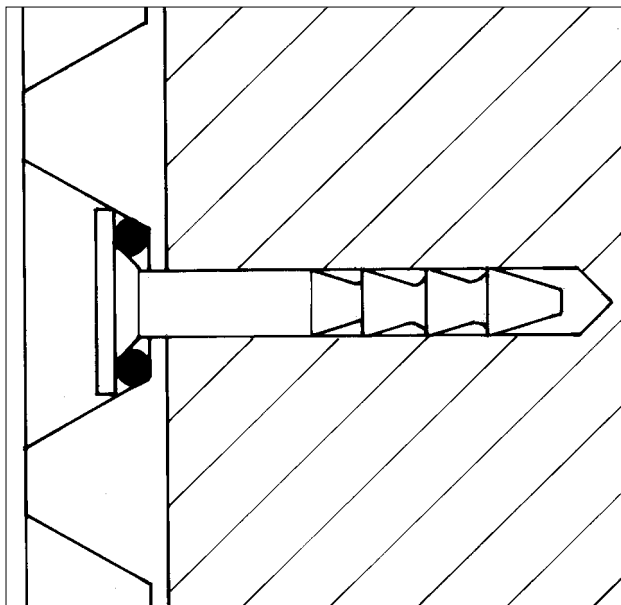


Figure 2 Platon Brick Plug



## Design Data

### 2 General

2.1 Platon P20 is satisfactory as a support for a dry lining, screed or flooring, over internal faces of walls and floors of all types of existing construction, in the following situations:

- damp walls and floors in underground situations subject to high groundwater levels, and perennial moisture
- over walls and floors which have a friable or painted surface, are contaminated with oil or mould, or have a high salt content
- as a waterproofing or 'tanking' in areas subject to vibration.

2.2 Depending on the application required and the site conditions, Platon P20 Membrane may be used as:

- an underfloor damp-proof membrane
- a dry-lining for walls, ventilated into the room via aeration slots at the top and bottom of the wall
- a completely sealed system covering floor and wall used in conjunction with Platon Multi on the ceiling, with provision made for disposing of water build-up behind the membrane via a sump and pump.

2.3 The system is satisfactory for use in Type C (drained protection) structural concrete constructions in accordance with BS 8102 : 1990, clause 3.2.4.

2.4 Under normal operating conditions the membrane is not affected by underfloor heating.

### 3 Resistance to water and water vapour



3.1 The membrane is water resistant and has a high resistance to water vapour. Consequently the measures described in the *Installation* part of this Detail Sheet must be followed to ensure that the membrane acts as a drainage layer and that there is no excessive build-up of water behind the system.

3.2 All joints and fixings must be sealed with Platon sealing products, and drainage channels and gullies, or sumps and pumps should be installed as necessary to disperse excess or standing water.

3.3 Floors should have a drainage outlet point. There should be a fall towards the outlet point or a drainage channel made around the perimeter of the floor, to ensure water can flow to the outlet.

### 4 Resistance to salt transfer

The system provides an effective barrier to the transmission of salts or other contaminants from the substrate.

### 5 Resistance to puncture, impact and loading

5.1 The membrane has a high resistance to puncture and will not be damaged by normal foot traffic during installation or while laying concrete or screeding to BS 8204-1 : 1999.

5.2 The system can support the long-term imposed loadings defined in BS 6399-1 : 1996, Table 1, categories A, C1 and C2, and situations with similar loadings in category B, without undue deformation.

### 6 Wall-mounted fittings

Wall-mounted fittings (apart from lightweight items such as framed pictures) should be fixed where possible into battens, whose position and number of support fixings into the loadbearing structure are predetermined. Only in exceptional circumstances should fittings be fixed through the membrane and lining board to the loadbearing structure behind, using proprietary fixings. Holes made in the membrane must be filled with a flexible sealant, such as Platon Sealer.

### 7 Durability



7.1 Under normal conditions of use the system will provide an effective barrier to the transmission of salts, liquid water and water vapour for the life of the structure in which it is incorporated.

7.2 Regular maintenance of all gullies, sumps and pumps must be conducted to ensure that a build-up of water does not occur behind the membrane.

### 8 Survey in damp conditions

8.1 Where conditions are damp, a full survey is necessary by a specialist surveyor to diagnose the cause and to establish if treatment is required.

8.2 If rising damp is found, a remedial treatment is conducted in accordance with the relevant Agrément Certificate, BS 6576 : 1985 and the British Wood Preserving and Damp-proofing Association (BWPD) Code of Practice 1997.

8.3 Appropriate remedial measures are taken to rectify major causes of damp conditions or water ingress, and to repair structural defects.

### 9 Surface preparation

9.1 When used in new constructions the concrete base must be laid in accordance with BS 8204-1 : 1999. If a board covering is to be laid directly on the membrane, the concrete base must have a surface regularity of at least SR 2<sup>(1)</sup>, as specified in BS 7916 : 1998 and described in BS 8204-1 : 1999.

(1) Maximum permissible departure of 5 mm from the underside of a 3 m straight edge, resting in contact with the floor.

9.2 Any unsound plaster, render or screed should be removed to expose the substrate which is then cleaned with a stiff brush to remove loose material, laitance, salt residue, mould or adhesive. If mould is present the substrate should be treated with a fungicidal wash.

9.3 Uneven substrates should be dubbed out with a cement-sand (1:4) render or screed, to the tolerance described in section 9.1. They should be allowed to set before the Platon P20 membrane is fixed.

### 10 Walls

10.1 Installation of the Platon P20 Membrane is commenced at the top of the construction. Sheets are overlapped by 120 mm, ie two domes. For horizontal joints, the lower sheet is always positioned in front of the upper sheet. Overlaps should be sealed using a run of Platon Sealing Rope placed along the flat area of the P20 membrane between the two rows of domes.

10.2 Alternatively, for vertical joints only, the sheets can be fixed flush and the joints overlapped with Platon Wall/Floor Junction, and Platon Sealing Tape or Platon Overtape.

10.3 Fixings are made through the domes into holes drilled through the membrane. Platon Brick Plugs, to which Platon Sealing Rope has been applied around the rim, are inserted into the holes and tapped flush with the membrane. The Platon

Sealing Rope forms a sealing gasket between the plug and membrane.

10.4 The membrane is installed over windows and then cut away to expose them. For doors and other obstructions, the membrane is installed up to the perimeter. In both cases the gaps are sealed with Platon Wall/Floor Junction and Platon Sealing Tape.

10.5 Power cables, points and light switches should preferably be remounted in front of the P20 membrane.

### 11 Floors

11.1 The membrane is laid out 'domes down' over the floor, and consecutive membrane widths are laid so an overlap of two interlocking domes is achieved. The overlapped joints should be sealed using Platon Sealing Rope in the flat section between domes, or where necessary sheets are laid flush and overlapped with Platon Wall/Floor Junction and sealed with Platon Sealing Tape, or overlapped and sealed with Platon Overtape.

11.2 The membrane is cut within 5 mm to 10 mm of any pipes and services in the floor, and the gap filled with sealing rope. A patch of membrane or Platon Wall/Floor Junction is overlaid and sealed to the service with rope, and its circumference sealed with Platon Sealing Tape or Platon Overtape.

11.3 Fixings must not be applied through the floor membrane.

11.4 Where appropriate at wall/floor junctions and corners of the installation the membrane should be cut flush and the gap between the wall and floor membranes overlaid with Platon Wall/Floor Junction and sealed with Platon Sealing Tape.

11.5 Alternatively, where a wall membrane is not being installed the floor membrane may be turned up by 100 mm at the walls. At corners a cut is made and the membrane folded to form an edge-to-edge joint, then overlaid with Platon Wall/Floor Junction and sealed with Platon Sealing Tape.

### 12 Dry lining of walls

Linings should in principle be free-standing framework, blockwork or similar. Where necessary these should be tied back by fixing into the Platon Brick Plug's fixing hole. Platon Sealer may be injected into the fixing hole to reduce the risk of water penetration.

### 13 Floor membrane coverings

13.1 The membrane is covered by reinforced concrete or screed at least 65 mm thick, in accordance with BS 8204-1 : 1999. Care should be taken to ensure the membrane is not displaced when placing the concrete or screed over the membrane.

# Electronic Copy

13.2 Alternatively, the studs should be filled with dried sand, and then suitable tongue-and-groove panels should be selected in accordance with BS 7916 : 1998 and loose-laid over the membrane to within 10 mm of the walls. The panels are staggered and the joints sealed with PVA adhesive to BS 4071 : 1966(1988).

## Bibliography

BS 4071 : 1966(1988) *Specification for polyvinyl acetate (PVA) emulsion adhesives for wood*

BS 6399 *Loading for buildings*

BS 6399-1 : 1996 *Code of practice for dead and imposed loads*

BS 6576 : 1985 *Code of practice for installation of chemical damp-proof courses*

BS 7916 : 1998 *Code of practice for the selection and application of particleboard, oriented strand board (OSB), cement bonded particleboard and wood fibreboards for specific purposes*

BS 8102 : 1990 *Code of practice for protection of structures against water from the ground*

BS 8204 *Screeds, bases and in-situ floorings*

BS 8204-1 : 1999 *Concrete bases and cement sand levelling screeds to receive floorings. Code of practice*

British Wood Preserving and Damp-proofing Association Code of Practice *The Installation of Remedial Damp-proof Courses in Masonry Walls* : January 1997



On behalf of the British Board of Agrément

Date of issue: 9th October 2001

A handwritten signature in black ink, appearing to read 'P. Q. Newson'.

Chief Executive



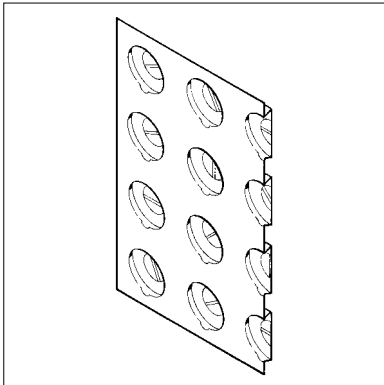
Isola AS, Platon Factory

Certificate No 01/3823

**DETAIL SHEET 4**

## PLATON PLASTER BASE

### Product



- THIS DETAIL SHEET RELATES TO PLATON PLASTER BASE, A MOULDED PE-HD SHEET, INCORPORATING UNDERCUT STUDS IN A DOVETAIL SHAPE WHICH FORM A KEY FOR PLASTER AND RENDER COATS.
- The product is used on internal walls and vaulted ceilings, above or below ground in new or existing buildings over a contaminated or damp background to support a plaster or render coat or dry lining on plaster dabs.
- The product may also be used in conjunction with Platon Multi and Platon P20 Membranes in sealed systems.
- The system should be installed by competent contractors.

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

### Technical Specification

#### 1 Description

1.1 Platon Plaster Base is a clear, high-density polyethylene (PE-HD) membrane, moulded to form undercut studs, which act as a key to subsequently applied plaster or render (see Figure 1).

1.2 Characteristics of the membrane are:

thickness (mm)	0.5
stud height (mm)	5
weight per unit area (kgm <sup>-2</sup> )	0.48
roll sizes (m)	2.0 x 20
weight of roll (kg)	19 approx
air gap volume (lm <sup>-2</sup> )	4

1.3 Ancillary materials used with the membrane are:

Platon Plaster Plug — a plastic, pre-drilled plug for fixing membrane to brick or stone (see Figure 2)

Platon Sealing Rope — butyl rubber beading for sealing the membrane around pipes and openings, and to form a gasket between the plug and the membrane

Platon Sealer — a butyl rubber sealant for sealing the membrane around pipes and openings and at joints

Platon Overtape — 100 mm wide butyl rubber tape, backed with non-woven polypropylene for sealing joints in the membrane

Standard metal edge lathing

Triton Trimix 1 — a water- and salt-resistant additive for sand and cement renders.

Figure 1 Platon Plaster Base

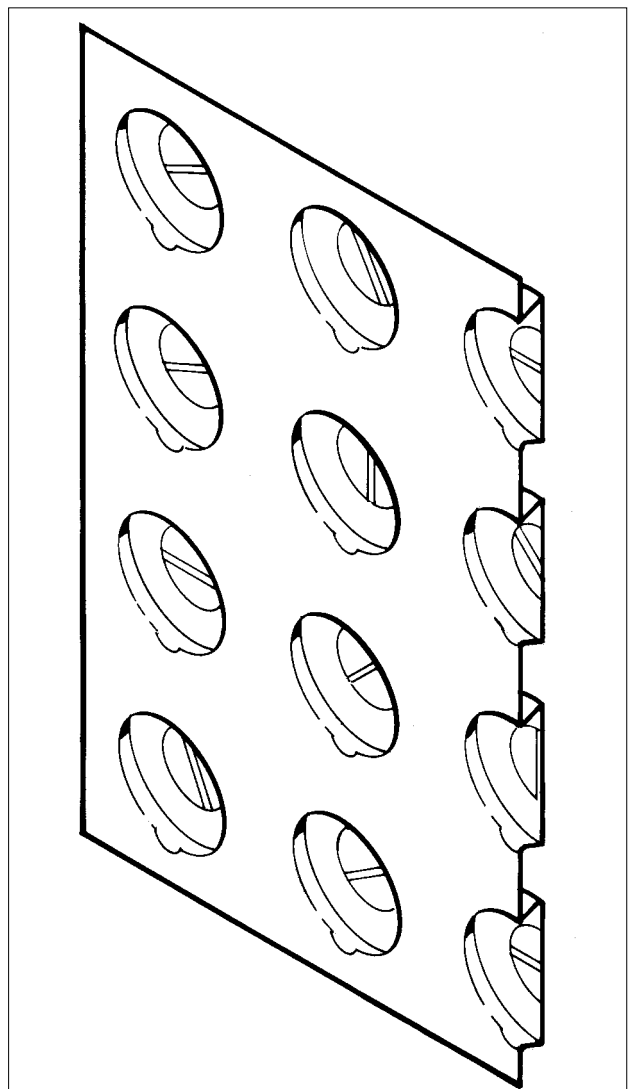
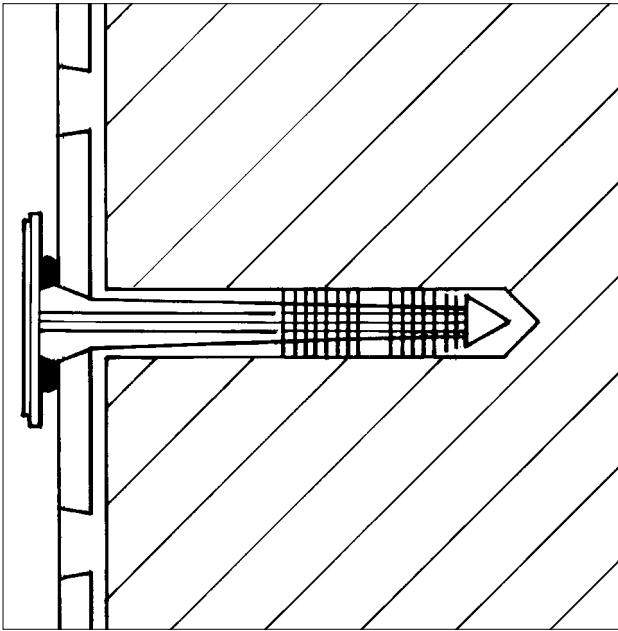


Figure 2 Platon Plaster Plug



## Design Data

### 2 General

Platon Plaster Base is satisfactory for use as a support for replastering/rendering, or for a dry lining fixing by plaster dabs over internal walls of all types of construction, in the following situations:

- damp walls in underground situations subject to high groundwater levels, and perennial moisture
- on vaulted ceilings of archways or cellars subject to dripping water
- in conjunction with a remedial dpc system where the walls have a high salt content and/or it is necessary to complete the installation immediately without allowing a period for initial drying
- over a wall which has a friable or painted surface, is contaminated with oil or mould, or has a high salt content
- as a waterproofing or 'tanking' in areas subject to vibration.

### 3 Resistance to water and water vapour



The membrane is water resistant and has a high resistance to the transmission of water vapour. Consequently, the measures described in the *Installation* part of this Detail Sheet must be followed to ensure that, where the surface is damp, there is a flow of air across it or that the membrane acts as a drainage layer and that there is no excessive build up of water behind the system.

### 4 Resistance to salt transfer

The system provides an effective barrier to the transmission of salts or other contaminants from the substrate.

### 5 Impact resistance

Platon Plaster Base, plastered, rendered or dry-lined, has a satisfactory resistance to soft and hard body impacts.

### 6 Wall-mounted fittings

Wall-mounted fittings (apart from lightweight items such as framed pictures) should be fixed (using recommended proprietary fixings) through the membrane and lining board, plaster or render to the loadbearing structure behind. Holes made in the membrane should be filled with a flexible sealant before inserting the fixing.

### 7 Durability



Under normal conditions of use, the product will provide an effective barrier to the transmission of salts, liquid water and water vapour for the life of the structure in which it is incorporated.

## Installation

### 8 Survey in damp conditions

8.1 Where conditions are damp, a full survey is necessary by a specialist surveyor to diagnose the cause and to establish if treatment is required.

8.2 If rising damp is found, a remedial treatment is conducted in accordance with the relevant Agrément Certificate, BS 6576 : 1985 and the British Wood Preserving and Damp-proofing Association (BWPDA) Code of Practice 1997.

8.3 Appropriate remedial measures are taken to rectify other causes of damp conditions or water ingress and to repair structural defects.

### 9 Surface preparation

9.1 Any unsound plaster or render should be removed to expose the substrate which is then cleaned with a stiff brush to remove any loose material, laitance, salt residue, mould or adhesive. If mould is present the substrate should be treated with a fungicidal wash.

9.2 Uneven substrates should be dubbed out with a cement-sand (1:4) render to achieve a flat finish, and allowed to set before fixing the membrane.

### 10 Membrane fixing

10.1 Platon Plaster Base is placed against the wall either vertically, or horizontally with the lower sheet positioned in front of the upper sheet with a minimum overlap of two studs.

10.2 Fixing is commenced at ceiling level. Fixings are made through the spacing between four studs (not through the studs themselves) into holes drilled through the membrane into the substrate. Platon Plaster Plugs to which Platon Sealing Rope has

been applied around the rim, are inserted into the holes and tapped flush with the membrane.

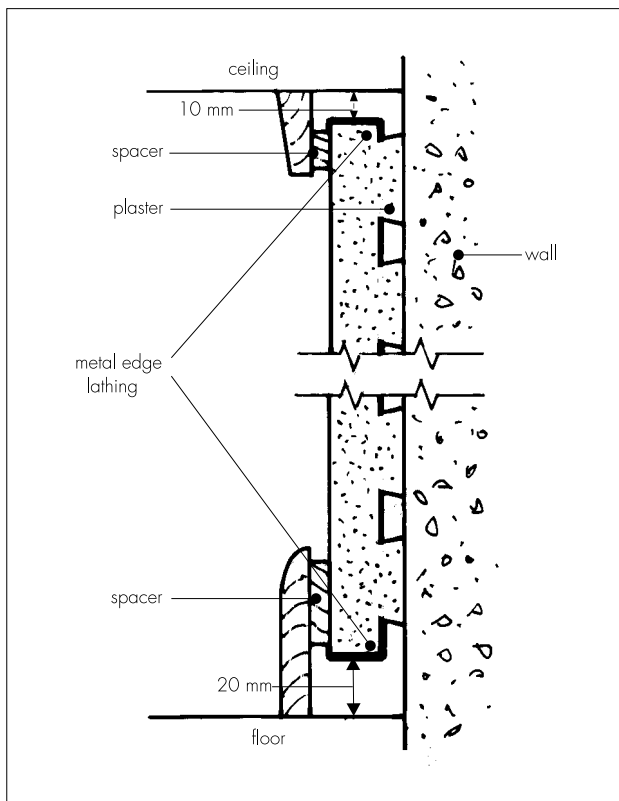
10.3 On difficult substrates the fact that the membrane is clear will allow the contractor to view the substrate through the membrane and choose the optimum site for each fixing.

10.4 Fixings are made at maximum spacings of 300 mm.

10.5 Joints are made by overlapping the membrane by a minimum of two studs. The lap is made secure by the use of Platon Plaster Plugs as close as possible to the edge of the membrane. Once the fixings are in place, the overlap is wiped free of dust and sealed with 100 mm wide Platon Overtape applying equal overlap areas to each sheet of membrane.

10.6 For above ground applications, where the system is not sealed, standard metal edge lathing is fixed at the top and bottom of the membrane to maintain a 10 mm gap at wall/ceiling and a 20 mm gap at wall/floor junctions (see Figure 3).

Figure 3 Wall detail with plaster finish



10.7 The membrane is installed over windows and then cut away to expose them. For doors and other obstructions, the membrane is installed up to the perimeter. In both cases the gaps are sealed with Platon Sealing Rope or Tape.

10.8 Power cables, points and light switches preferably should be remounted in front of the membrane.

10.9 Spacers measuring 3 mm by 200 mm are fixed at 600 mm centres behind the skirting board and ceiling coving to ensure a ventilation gap (see Figure 3). Alternatively, a proprietary ventilated skirting board or ceiling coving may be used.

## 11 Plastering

11.1 All common lightweight plasters, renovating plasters and one coat plasters can be applied to Platon Plaster Base using the procedures defined in BS 5492 : 1990 (and/or the appropriate Agrément Certificate). When using sand/cement render, a mix of one part cement to six parts sand should be used, incorporating a plasticiser such as Triton Trimix 1 (Trimix 1 is added to the gauging water at the ratio of 1:24). The standard of installation should comply with the requirements of BS 8000-10 : 1995.

11.2 The plaster should be a minimum total depth of 15 mm.

## 12 Dry lining

12.1 A gypsum-based adhesive is mixed and applied to the membrane in accordance with BS 8212 : 1995. The total area of contact between the adhesive and board surface should not be less than 20% of the board area.

12.2 Gypsum plasterboard to BS 1230-1 : 1985(1994), or similar dry lining boards covered by a current Agrément Certificate, are pressed onto the plaster dabs and jointed in the usual manner. Temporary spacers approximately 20 mm to 25 mm high are positioned under the dry lining to support it during the curing period.

## 13 Finishing

13.1 When the membrane is installed, the walls can be plastered with conventional gypsum plasters.

13.2 Where Platon Plaster Base is installed internally and plastered, permanent decoration, such as vinyl papers or oil paint, may be applied. Temporary permeable decoration (necessary when a remedial dpc installation is replastered conventionally) is not necessary when Platon Plaster Base is used.

13.3 Once the plastered, dry-lined or rendered surface has dried, the surface can be painted or wallpapered using traditional methods and materials.

## Technical Investigations

The following is a summary of the technical investigations carried out on Platon Plaster Base.

### 14 Tests

Tests were carried out to determine:

nail tear resistance

thickness

impact resistance of plastered, rendered and dry-lined membrane.

### 15 Investigations

15.1 The manufacturing process was examined, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

15.2 Trial installations were conducted to assess the practicability of installation of the system and the methods used for plastering, rendering and dry lining.

15.3 An assessment was made of the scope of use and durability of the system in relation to the generic properties of the membrane.

## Bibliography

BS 1230 *Gypsum plasterboard*  
BS 1230-1 : 1985(1994) *Specification for plasterboard excluding materials submitted to secondary operations*

BS 5492 : 1990 *Code of practice for internal plastering*

BS 6576 : 1985 *Code of practice for installation of chemical damp-proof courses*

BS 8000 *Workmanship on building sites*  
BS 8000-10 : 1995 *Code of practice for plastering and rendering*

BS 8212 : 1995 *Code of practice for dry lining and partitioning using gypsum plasterboard*

British Wood Preserving and Damp-proofing Association Code of Practice *The Installation of Remedial Damp-proof Courses in Masonry Walls* : January 1997



On behalf of the British Board of Agrément

Date of issue: 9th October 2001

Chief Executive