Isola AS
Notodden Factory
Lienfossveien 5
N-3678 Notodden
Norway

Tel: 0047 3557 5700
e-mail: isola@isola.no
website: www.isola.com

Agrément Certificate
01/3823
Product Sheet 3

SYSTEM PLATON

PLATON PLASTER BASE

This Agrément Certificate Product Sheet(1) relates to Platon Plaster Base, a translucent high-density polyethylene (HDPE) membrane for damp-proofing walls and vaulted ceilings in new constructions or in existing buildings. It can be used above and below ground, over a contaminated or damp background, to support a plaster or render coat or dry lining on plaster dabs.

(1) Hereinafter referred to as 'Certificate'.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.

KEY FACTORS ASSESSED

Resistance to water and water vapour — the membrane is water resistant and has a high resistance to water vapour transmission (see section 6).

Resistance to salt transfer — the membrane provides an effective barrier to the transmission of salts or other contaminants from the substrate (see section 8).

Properties in relation to fire — the membrane is not classified in accordance with BS EN 13501-1 : 2018 and its use is restricted under the national Building Regulations in some cases (see section 9).

Resistance to impact — the membrane, plastered, rendered or dry-lined, has a satisfactory resistance to soft and hard body impacts (see section 10).

Durability — under normal conditions of use, the membrane 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 (see section 13).

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Fourth issue: 20 November 2020

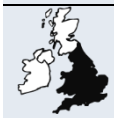
Originally certificated on 9 October 2001

Hardy Giesler
Chief Executive Officer

The BBA is a UKAS accredited certification body – Number 113.
The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk
Readers MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.
Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

Regulations

In the opinion of the BBA, Platon Plaster Base, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	**B3(3)(4)**	**Internal fire spread - structure**
Comment:		The product can contribute to satisfying this Requirement. See section 9.1 of this Certificate.
Requirement:	**B4(1)**	**External fire spread**
Comment:		The product is restricted by this Requirement. See section 9 of this Certificate.
Requirement:	**C2(a)(b)**	**Resistance to moisture**
Comment:		The product adequately resists the passage of moisture. See section 6.1 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The product is acceptable. See section 13 and the *Installation* part of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)**	**Durability, workmanship and fitness of materials**
Comment:		The product is acceptable. See section 13 and the *Installation* part of this Certificate.
Regulation:	**9**	**Building standards applicable to construction**
Standard:	2.4	Cavities
Comment:		The product can contribute to satisfying this Standard with respect to clause 2.4.2$^{(1)(2)}$. See section 9.1 of this Certificate.
Standard:	3.3	Flooding and ground water
Comment:		The product can contribute to minimising or eliminating the effects of flooding on the building fabric and/or the building element, with reference to 3.3.1$^{(1)(2)}$ of this Standard. See section 6.1 of this Certificate.
Standard:	3.4	Moisture from the ground
Comment:		The product adequately resists the passage of moisture with reference to clauses 3.4.1$^{(1)(2)}$, 3.4.2$^{(1)(2)}$ 3.4.5$^{(1)(2)}$, 3.4.6$^{(1)(2)}$ and 3.4.7$^{(1)(2)}$ of this Standard. See section 6.1 of this Certificate.
Standard:	3.6(a)	Surface water drainage
Comment:		The product can contribute to satisfying this Standard, with reference to clause 3.6.3$^{(1)(2)}$ of this Standard. See section 6.1 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product adequately resists the passage of moisture, with reference to clause 3.10.1$^{(1)(2)}$ of this Standard. See section 6.1 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The product can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.

Regulation:	**12**	**Building standards applicable to conversions**
Comment:		All comments given for the product under Regulation 9, Standards 1 to 6 also apply to this Regulation, with reference to clause 0.12.1[(1)(2)] and Schedule 6[(1)(2)]. (1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic).

The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	**23(a)(i)(iii)**	**Fitness of materials and workmanship**
Comment:	**(b)(i)**	The product is acceptable. See section 13 and the *Installation* part of this Certificate.
Regulation:	**28(a)(b)**	**Resistance to moisture and weather**
Comment:		The product adequately resists the passage of moisture. See section 6.1 of this Certificate.
Regulation:	**35(3)(4)**	**Internal fire spread - structure**
Comment:		The product can contribute to satisfying this Regulation. See section 9.1 of this Certificate.

Construction (Design and Management) Regulations 2015
Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See section: 1 *Description* (1.2) of this Certificate.

Additional Information

NHBC Standards 2020

In the opinion of the BBA, Platon Plaster Base, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapters 5.1 *Substructure and ground bearing floors*, 5.2 *Suspended ground floors* and 5.4 *Waterproofing of basements and other below ground structures*.

Where Grade 3 waterproofing protection is required and the below-ground wall retains more than 600 mm (measured from the top of the retained ground to the lowest finished floor level), the product should be used in combination with either a Type A or B waterproofing protection.

In the opinion of the BBA, use of the product on existing structures, if installed and used in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards for Conversions and Renovations*, taking account of other relevant guidance within the chapter and the suitability of the substrate to receive the product.

CE marking

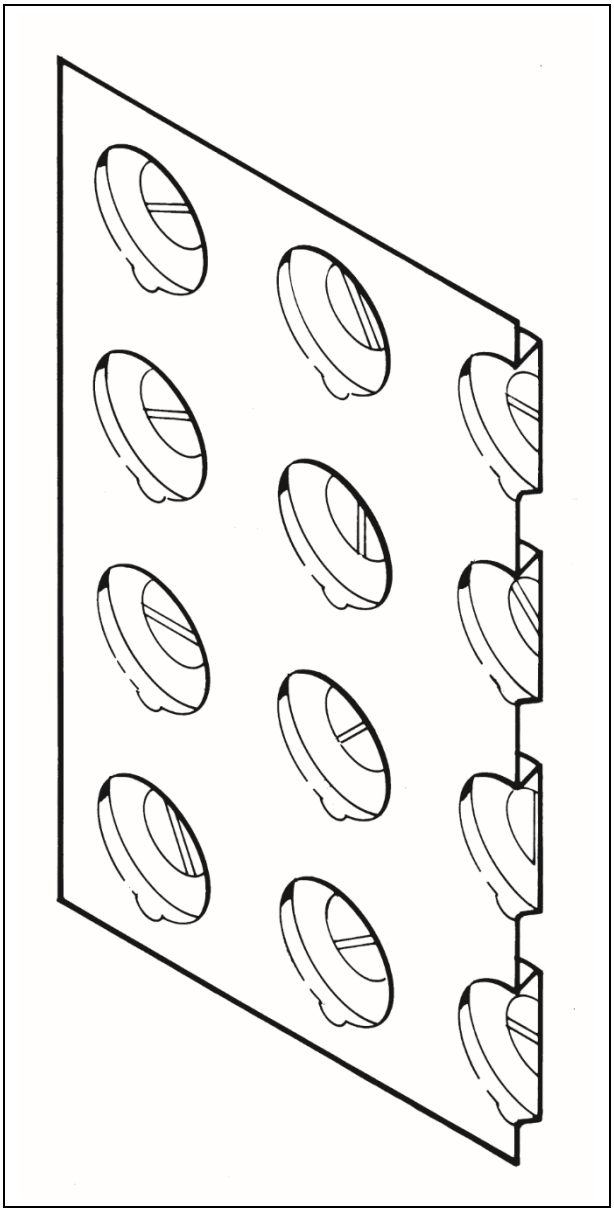
The Certificate holder has taken the responsibility of CE marking the product, in accordance with harmonised European Standard BS EN 13967 : 2012.

Technical Specification

1 Description

1.1 Platon Plaster Base is a translucent, HDPE membrane, moulded to form undercut studs which act as a key to subsequently-applied plaster or render (see Figure 1).

Figure 1 Platon Plaster Base



1.2 Platon Plaster Base is supplied in roll form and has the following nominal characteristics:

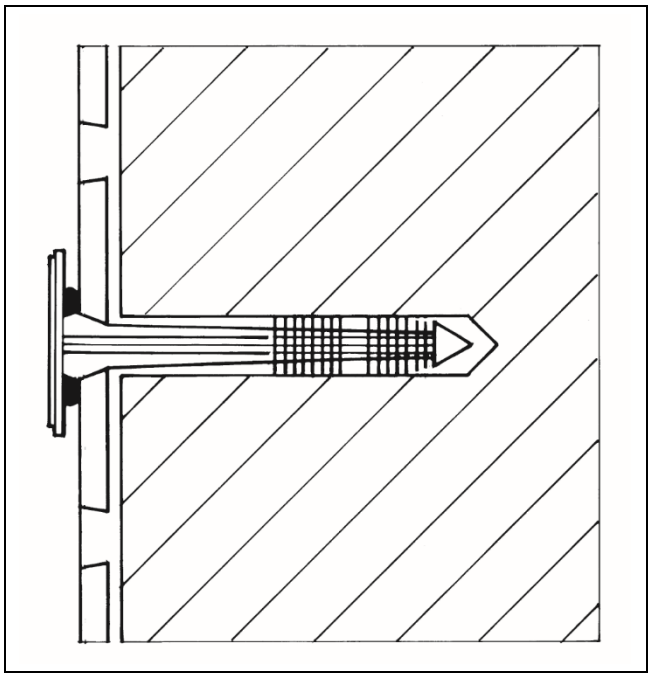
Thickness (mm)	0.5 approx
Stud height (mm)	5
Weight per unit area ($kg \cdot m^{-2}$)	0.48 approx
Roll size (m)	2.0 x 20
Weight of roll (kg)	19 approx
Air gap volume ($l \cdot m^{-2}$)	3.2.

1.3 Ancillary materials used with the membrane include:

- Platon Plaster Plug — a plastic plug for fixing the membrane to brick or stone. The plug has a pre-formed hole permitting timber fixings to be inserted without breaching the membrane (see Figure 2)
- Platon Plaster Plug Seal — a pre-formed rubber grommet to form a seal when using Platon Plaster Plugs
- Platon Sealing Rope — butyl rubber beading for sealing joints in the membrane and 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 openings and at joints
- Platon Overtape — butyl rubber tape, at least 100 mm wide, backed with non-woven polypropylene, for sealing joints in the membrane, and for use around services, penetrations and edge details, and between wall and floor membranes

- standard metal edge lathing
- Triton Trimix 1 — a water- and salt-resistant additive for sand and cement renders
- Platon Corner Strip — 150 mm x 10 m roll. A self-adhesive membrane strip for sealing junctions between walls and floors, and for sealing joints at corners.

Figure 2 Platon Plaster Plug



2 Manufacture

2.1 The membrane is formed in a continuous process in which HDPE is extruded into rolls and the stud impressions formed.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The management systems of Isola AS have been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by DNV (Certificate QSC – 6011).

2.4 Platon Plaster Base is marketed in the UK by Triton Systems, Units 3-5, Crayford Commercial Centre, Greyhound Way, Crayford, Kent DA1 4HF, Tel: 01322 318830, Fax: 01322 524017,
e-mail: info@tritonsystems.co.uk, website: www.tritonsystems.co.uk

3 Delivery and site handling

3.1 The membrane is delivered to site in wrapped rolls bearing the product and manufacturer's name and the BBA logo incorporating the number of this Certificate.

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

Assessment and Technical Investigations

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

.

Design Considerations

4 Use

4.1 Platon Plaster Base is satisfactory for use as a damp-proof membrane on internal walls and vaulted ceilings, above and below ground, in new construction or in existing buildings over a contaminated or damp background. It can support plastering, rendering or a dry lining fixed by plaster dabs, where appropriate, in the following situations:

- on damp walls in underground situations subject to high groundwater levels and perennial moisture
- on vaulted ceilings of archways or cellars subject to water ingress
- in conjunction with a remedial damp-proof course (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 (eg with oil or mould) or has a high salt content
- as a waterproofing membrane in areas subject to vibration.

4.2 Depending on the application required and the site conditions, the membrane may be used as:

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

4.3 The membrane has not been assessed for use in chemically contaminated areas, such as brownfield sites.

4.4 The system is satisfactory for use in Type C (drained protection) structural concrete constructions in accordance with BS 8102 : 2009.

5 Practicability of installation

The product is designed to be installed by competent specialist contractors experienced with damp-proofing work.

6 Resistance to water and water vapour

6.1 The membrane is water resistant and has a high resistance to water vapour transmission. However, the product as installed is not resistant to hydrostatic pressure and, consequently, the measures described in the *Installation* part of this Certificate 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 it.

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

7 Risk of condensation

As with any room, there is a need to control the generation and dispersal of moisture in the internal environment and to select appropriate and robust designs to minimise the risk of both surface and interstitial condensation. The product has a very high resistance to vapour diffusion and this should be taken into account in any calculation of condensation risk.

8 Resistance to salt transfer

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

9 Properties in relation to fire

9.1 The membrane is not classified in accordance with BS EN 13501-1 : 2018. Where the product forms the face of a cavity the permissible areas of use and the spacing of cavity barriers are restricted by the national Building Regulations.

9.2 When used as part of the external wall above ground level the membrane should not be used on buildings in England and Wales that have a storey at least 18 m above ground level and contain: one or more dwellings, an institution, a room for residential purposes (excluding any room in a hostel, hotel or boarding house), student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools.

10 Resistance to impact

The membrane, plastered, rendered or dry-lined, has a satisfactory resistance to soft and hard body impacts.

11 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 must be filled with a flexible sealant, such as Platon Sealer or Platon Sealing Rope, before inserting the fixing.

12 Maintenance

12.1 As the membrane is covered by plaster, render or plasterboard and has suitable durability (see section 13), maintenance is not required.

12.2 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.

13 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.

14 Reuse and recyclability

The product comprises polyethylene, which can be recycled.

Installation

15 Survey

15.1 Where the area to be treated is below ground, or where conditions are damp, a full survey by a specialist waterproofing surveyor is necessary to diagnose the cause and to establish if treatment is required.

15.2 If rising damp to above-ground elevations is found, a remedial treatment is conducted in accordance with the relevant Agrément Certificate, BS 6576 : 2005 and the Property Care Association *Code of Practice for Installation of Remedial Damp-proof Courses in Masonry Walls*.

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

16 Surface preparation

16.1 Any unsound plaster or render is 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. The Certificate holder can advise on suitable materials and procedures to be used.

16.2 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.

17 Procedure

General

17.1 Platon Plaster Base may be used in combination with any of the appropriate Platon membranes which are the subject of other Product Sheets of this Certificate.

17.2 The membrane should always be used with the lower sheet placed in front of the higher sheet with a minimum overlap of two studs. The lap is made secure by the use of Platon Plaster Plugs fixed as close as possible to the edge of the membrane, at 150 mm centres along the joint. The overlap is then wiped clean of dust and sealed with 100 mm wide Platon Overtape applying equal overlap areas to each sheet of membrane.

17.3 Fixings are made through the spacing between four studs (not through the studs) 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.

17.4 On difficult substrates, the translucence of the membrane allows the contractor to view the substrate through the membrane and choose the optimum site for each fixing.

17.5 Fixings are made in a diamond pattern at a minimum number of 13 per square metre, and a maximum spacing of 300 mm.

Ceilings

17.6 Ceilings to be covered must always have a fall, as per vaulted cellar constructions, to ensure water does not build up against the membrane or a joint. The vertical drop between the ends of two membrane sheets for horizontal overlaps should be a minimum of 100 mm.

17.7 Any sagging of the membrane between fixing points should not be great enough for ponding to occur.

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

Walls

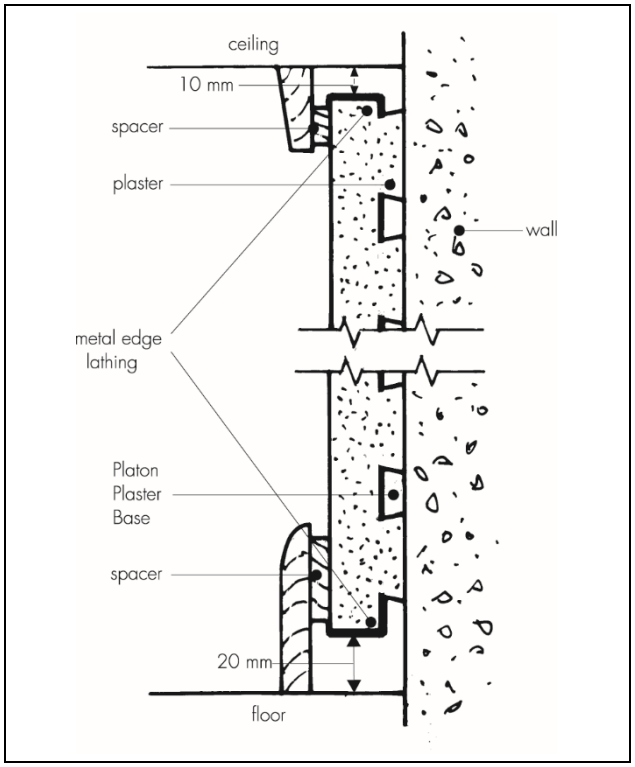
17.9 Installation of the membrane is commenced at the top of the construction. Joints are made by overlapping the membrane by a minimum of two studs.

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

17.11 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.

17.12 In 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 junctions and a 20 mm gap at wall/floor junctions. Spacers measuring 3 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.

Figure 3 Wall detail with plaster lining



18 Plastering

18.1 Most common lightweight plasters, renovating plasters and one-coat plasters can be applied to Platon Plaster Base using the procedures defined in BS EN 13914-2 : 2016 and/or the appropriate BBA 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 (Triton Trimix 1 is added to the gauging water at the ratio of 1:24). Where appropriate, the recommendations of the Certificate holder should be followed.

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

19 Dry lining of walls

19.1 A gypsum-based drywall adhesive to BS EN 14496 : 2017 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.

19.2 Gypsum plasterboard to BS EN 520 : 2004, or similar dry lining boards covered by a current BBA Certificate, are pressed onto the plaster dabs and jointed in the usual manner. Temporary spacers approximately 20 to 25 mm high are positioned under the dry lining to support it during the curing period.

20 Finishing works

20.1 The plastered membrane can accept permanent decoration, such as vinyl papers or oil paint. Temporary permeable decoration (necessary when a remedial dpc installation is replastered conventionally) is not necessary.

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

Technical Investigations

21 Tests

Tests were carried out to on Platon Plaster Base and the results assessed to determine:

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

22 Investigations

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

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

22.3 An assessment was made of the scope of use and durability of the product.

Bibliography

BS 6576 : 2005 + A1 : 2012 *Code of practice for diagnosis of rising damp in walls of buildings and installation of chemical damp-proof courses*

BS 8102 : 2009 *Code of practice for protection of below ground structures against water from the ground*

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

BS EN 520 : 2004 + A1 : 2009 *Gypsum plasterboards — Definitions, requirements and test methods*

BS EN 13501-1 : 2018 *Fire classification of construction products and building elements— Classification using data from reaction to fire tests*

BS EN 13914-2 : 2016 *Design, preparation and application of external rendering and internal plastering — Internal plastering*

BS EN 13967 : 2012 + A1 : 2017 *Flexible sheets for waterproofing — Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet — Definitions and characteristics*

BS EN 14496 : 2017 *Gypsum based adhesives for thermal/acoustic insulation composite panels and plasterboard — Definitions, requirements and test*

BS EN ISO 9001 : 2015 *Quality management systems — Requirements*

23 Conditions

23.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

23.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

23.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

23.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

23.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

23.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.

British Board of Agrément
Bucknalls Lane
Watford
Herts WD25 9BA
©2020
tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk