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Agrément Certificate
21/5915
Product Sheet 2

COLPHENE BSW STRUCTURAL WATERPROOFING SYSTEMS

COLPHENE MEMBRANES SYSTEMS

This Agrément Certificate Product Sheet(1) relates to Colphene Membranes Systems, a range of polymer-modified bitumen membranes for use in external post-applied damp proof and waterproofing applications in below-ground concrete structures.

(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 systems, including joints, provide an effective barrier to the passage of water under hydrostatic pressure and water vapour from the ground (see section 6).

Resistance to underground gases — systems incorporating Colphene BSW V will restrict the ingress of radon, methane and carbon dioxide into the structure (see section 7).

Resistance to mechanical damage — the systems will accept, without damage, the limited foot traffic and loads associated with installation, and will accommodate the minor movements likely to occur under normal service conditions (see section 8).

Adhesion — the systems have satisfactory adhesion (see section 9).

Durability — the systems, when fully protected, under normal service conditions, will provide an effective barrier to the transmission of liquid water and water vapour and (for systems incorporating Colphene BSW V) will restrict the ingress of radon, methane and carbon dioxide for the life of the structure in which it is incorporated (see section 12).

The BBA has awarded this Certificate to the company named above for the systems described herein. These systems have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

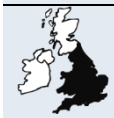
On behalf of the British Board of Agrément

Date of First issue: 16 September 2021

Hardy Giesler
Chief Executive Officer

Regulations

In the opinion of the BBA, Colphene Membranes Systems, 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:	**C1(2)**	**Site preparation and resistance to contaminants**
Comment:		When properly installed in a correctly designed structure, systems incorporating Colphene BSW V will form an effective barrier to the movement of radon, methane and carbon dioxide and will contribute to a structure satisfying this Requirement. See sections 7.1 and 7.2 of this Certificate.
Requirement:	**C2(a)**	**Resistance to moisture**
Comment:		The systems, including joints, will enable a structure to satisfy this Requirement. See section 6 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The systems are acceptable. See section 12 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 use of the systems satisfies the requirements of this Regulation. See section 12 and the *Installation* part of this Certificate.
Regulation:	**9**	**Building standards applicable to construction**
Standard:		Site preparation – harmful and dangerous substances
Standard:		Site preparation – protection from radon gas
Comment:		When properly installed in a correctly designed structure, systems incorporating Colphene BSW V will form an effective barrier to the movement of radon, methane and carbon dioxide, enabling compliance with these Standards, with reference to clauses 3.1.2(1)(2), 3.1.6(1)(2), 3.1.7(1)(2) and 3.2.2(1)(2). See sections 7.1 and 7.2 of this Certificate.
Standard:	3.4	Moisture from the ground
Comment:		The systems, including joints, will enable a structure to satisfy the requirements of this Standard, with reference to clauses 3.4.2(1)(2), 3.4.4(1)(2) and 3.4.6(1)(2). See section 6 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The systems can contribute to satisfying 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:		Comments in relation to the systems 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)(b)(i)**	**Fitness of materials and workmanship**
Comment:		The systems are acceptable. See section 12 and the *Installation* part of this Certificate.
Regulation:	**26(1)(b)(2)**	**Site preparation and resistance to contaminants**
Comment:		When properly installed in a correctly designed structure, systems incorporating Colphene BSW V will form an effective barrier to the movement of radon, methane and carbon dioxide, enabling compliance with the requirements of this Regulation. See sections 7.1 and 7.2 of this Certificate.
Regulation:	**28(a)**	**Resistance to moisture and weather**
Comment:		The systems, including joints, will enable a structure to satisfy the requirements of this Regulation. See section 6 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 sections: 1 *Description* (1.1) and 3 *Delivery and site handling* (3.2 and 3.3) of this Certificate.

Additional Information

NHBC Standards 2021

In the opinion of the BBA, Colphene Membranes Systems, 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* and 5.4 *Waterproofing of basements and other below ground structures*.

Where Grade 3 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 systems must be used in combination with either Type B or Type C waterproofing protection, as defined in BS 8102 : 2009.

The Certificate holder should be consulted for approved Type B and Type C solutions.

CE marking

The Certificate holder has taken the responsibility of CE marking the individual membranes in accordance with harmonised European Standard EN 13969 : 2004.

Technical Specification

1 Description

1.1 Colphene Membranes Systems comprise the following SBS-modified bitumen membranes:

Self-adhesive membrane

- Colphene 1500 – a self-adhesive membrane incorporating a cross-laminated polyethylene film on the top surface and siliconised release film on the lower face. The membrane is for use in vertical applications. The membrane has a nominal thickness of 1.5 mm.

- Colphene BSW V – a nominal 3.0 mm thick, self-adhesive waterproofing membrane incorporating a composite reinforcement with a 100 mm selvedge allowing for 55 mm self-adhesive and 45 mm heat-welded lap jointing. The membrane is finished with specially engineered silicon dioxide crystals on the topside and a release film on the underside.

- Colphene BSW V 3.0 – a nominal 3.0 mm thick, self-adhesive waterproofing membrane incorporating a composite reinforcement with a 120 mm selvedge allowing for 40 mm self-adhesive and 80 mm heat-welded lap jointing. The membrane is finished with specially engineered silicon dioxide crystals on the topside and a release film on the underside.

- Colphene BSW Protect'R – a nominal 2 mm thick, self-adhesive protection membrane incorporating a composite reinforcement. The membrane is finished with silica sand on the topside and a release film on the underside.

- Colphene BSW Protect'R 3.0 – a nominal 3 mm thick, self-adhesive protection membrane incorporating a composite reinforcement with a 100 mm selvedge allowing for 55 mm self-adhesive and 45 mm heat-welded lap jointing. The membrane is finished with silica sand on the topside and a release film on the underside.

- Colphene 3000 – a nominal 1.5 mm thick, self-adhesive membrane incorporating a triple-laminated polyethylene film on the top surface and siliconised release film on the lower face. The membrane is for use in vertical applications.

- Colphene 3000 HT – a nominal 1.5 mm thick, self-adhesive membrane incorporating a 120 triple-laminated polyethylene film on the top surface and siliconised release film on the lower face. The membrane is for use in vertical applications.

Loose-laid membranes

- Colphene BSW Unilay HP – a nominal 4.5 mm thick, waterproofing membrane incorporating a dual non-woven polyester reinforcement and additional fleece. The membrane has a 120 mm selvedge allowing for 40 mm self-adhesive and 80 mm heat-welded lap jointing. The membrane is finished with specially engineered silicon dioxide crystals on the topside and a thermoplastic film on the underside.

- Colphene BSW H – a nominal 3.5 mm thick, waterproofing membrane incorporating a non-woven polyester reinforcement with a 100 mm selvedge allowing for 55 mm self-adhesive and 45 mm heat-welded lap jointing. The membrane is finished with specially engineered silicon dioxide crystals on the topside and a thermoplastic film on the underside.

- Colphene BSW H Plus – a nominal 4.5 mm thick, waterproofing membrane incorporating a non-woven polyester reinforcement with a 100 mm selvedge allowing for 55 mm self-adhesive and 45 mm heat-welded lap jointing. The membrane is finished with specially engineered silicon dioxide crystals on the topside and a thermoplastic film on the underside.

- Colphene BSW H 3.5 – a nominal 3.5 mm thick, waterproofing membrane incorporating a non-woven polyester reinforcement with a 120 mm selvedge allowing for 40 mm self-adhesive and 80 mm heat welded lap jointing. The membrane is finished with specially engineered silicon dioxide crystals on the topside and a thermoplastic film on the underside.

Torch-on membranes

- Protecfondation – a membrane incorporating a polyester reinforcement. The top face is finished with a non-woven polyester fleece and the lower face with a thermofusible film. The membrane has a nominal thickness of 3.2 mm.

- Colphene FLAM 30 – a modified-bitumen membrane reinforced with a polyester reinforcement and finished with a thermofusible film on both faces. The membrane has a nominal thickness of 3.0 mm.

- Colphene FLAM 40 – a modified-bitumen membrane reinforced with a polyester reinforcement and finished with a thermofusible film on both faces. The membrane has a nominal thickness of 4.0 mm.

- Colphene FLAM 40 Plus – a modified-bitumen membrane reinforced with a polyester reinforcement and finished with a thermofusible film on both faces. The membrane has a nominal thickness of 4.0 mm.

- Colphene Torch'N'Stick – a nominal 2.7 mm thick, membrane incorporating a polyester reinforcement and a thermofusible film on both faces, used where additional protection is required. The membrane facilitates the application of suitable protection/drainage boards by torch application.

1.2 The nominal characteristics of the membranes are given in Table 1.

Table 1 Nominal characteristics of the membranes

Characteristic (unit)	**Nominal values**									
Colphene membrane:	1500	Protec-fondation	Flam 30	Flam 40	Flam 40 Plus	BSW Protect'R	BSW Protect'R 3.0	3000	3000 HT	Torch'N'Stick
Length (m)	10 or 20	10	10	8	8	15	10	18.7	23	12
Width (m)	1	1	1	1	1	1	1	1	1	1
Thickness (mm)	1.5	3.2	3.0	4.0	4.0	2.0	3.0	1.5	1.5	2.7
Mass per unit area ($kg \cdot m^{-2}$)	1.4	3.8	3.8	5.2	4.9	2.4	3.8	1.5	1.3	2.8
Roll weight (kg)	14 or 28	38	38	42	39	36	38	29	30	34
Tensile strength (N/50 mm) Machine direction Transverse direction	 175 200	 550 400	 750 550	 750 550	 1100 800	 800 600	 800 700	 500 600	 500 600	 1000 800
Elongation (%) Machine direction Transverse direction	 220 220	 30 30	 40 40	 40 40	 50 50	 45 45	 45 45	 20 10	 20 10	 50 50
Resistance to impact (hard substrate) (mm)	250	1000	600	850	1000	500	650	150	150	-
Resistance to static loading (kg)	5	15	15	15	20	5	10	20	20	-
Low temperature flexibility (°C)	-24	-16	-16	-16	-16	-16	-16	-25	-25	-25
Watertightness (kPa) Pass at:	300							100		500

Table 1 Nominal characteristics of the membranes (continued)

Characteristic (unit)	**Nominal values**					
Colphene membrane:	BSW Unilay HP	BSW H	BSW H Plus	BSW H 3.5	BSW V	BSW V 3.0
Length (m)	8	10	8	10	10	10
Width (m)	1	1	1	1	1	1
Thickness (mm)	4.5	3.5	4.5	3.5	3.0	3.0
Mass per unit area ($kg \cdot m^{-2}$)	5.0	4.3	5.6	4.3	3.8	3.8
Roll weight (kg)	40	43	45	43	38	38
Tensile strength (N/50mm) Machine direction Transverse direction	 1150 900	 1100 800	 1100 800	 1100 800	 800 700	 800 700
Elongation (%) Machine direction Transverse direction	 55 55	 55 55	 55 55	 55 55	 45 45	 45 45
Resistance to impact (hard substrate) (mm)	1500	1000	1000	1000	650	650
Resistance to static loading (kg)	20	15	15	15	10	5
Low temperature flexibility (°C)	-10	-16	-16	-16	-16	-16
Watertightness (kPa) Pass at:	-	600	-	-	600	-

1.3 Ancillary items for use with the systems include:

- Elastocol 500 primer – a solvent-based bitumen primer used for application of torch-on membranes
- Elastocol 600 primer – a solvent-based bitumen primer used for application of self-adhesive membranes
- Sopradere primer – a solvent-based bitumen primer used for application of torch-on membranes
- Aquadere primer – a water-based bitumen emulsion primer used for application of torch-on membranes
- Aquadere Stick primer – a water-based bitumen emulsion primer used for application of self-adhesive membranes
- Colphene Torch'N'Stick – an SBS polymer modified bitumen membrane incorporating a polyester reinforcement and a thermofusible film on both faces. The product is used to facilitate the application of suitable protection/drainage boards by torch application. The membrane has a nominal thickness of 2.7 mm.

1.4 Other products that may be used with the systems, but which are outside the scope of the Certificate, include:

- drainage boards/systems
- specialist sealants and banding
- waterstops and injection systems
- fasteners for temporarily fixing vertically applied membrane
- clamping rings, used for securing membrane around penetrations
- flashing systems
- repair mortars/compounds
- angle fillets.

2 Manufacture

2.1 The products are manufactured using conventional blending techniques and continuous coating processes.

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 system of the manufacturer has been assessed and registered as meeting the requirements of ISO 9001 : 2015 by SGS (Certificate number FR18/81842815).

3 Delivery and site handling

3.1 The membranes are delivered to site in rolls stacked upright on pallets with the selvedge edge on top. Each pallet is labelled with the batch number.

3.2 The primers are supplied in containers of the following sizes:

- Elastocol 500 (5 l and 30 l)
- Elastocol 600 (1 l, 5 l and 30 l)
- Sopradere (5 l and 30 l)
- Aquadere (1 l, 5 l and 25 l)
- Aquadere Stick (1 l, 5 l and 25 l).

3.3 The Certificate holder has taken the responsibility of classifying and labelling the systems under the *CLP Regulation (EC) No 1272 / 2008* on the *classification, labelling and packaging of substances and mixtures.* Users must refer to the relevant Safety Data Sheet(s).

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Colphene Post-Applied Membranes Systems.

Design Considerations

4 Use

4.1 Colphene Post-Applied Membranes Systems are satisfactory for use as externally applied Type A waterproofing protection as defined in BS 8102 : 2009 for the waterproofing of new-build underground structures and damp-proofing in accordance with the relevant clauses of CP 102, Section 3.

4.2 The systems can be used to provide an effective barrier to the transmission of liquid water under hydrostatic pressure and water vapour where Grades 1 to 3 waterproofing protection is required, as defined in Table 2 of BS 8102 : 2009.

4.3 Where Grade 3 waterproofing protection is required, the environment must also be controlled by use of ventilation, dehumidification and/or air conditioning, as appropriate, to ensure dampness does not occur. See also the *Additional information* section of this Certificate relating to *NHBC Standards.*

4.4 *S*ystems incorporating Colphene BSW V are also satisfactory for use in restricting the ingress of radon, methane and carbon dioxide into the structure (see also section 7 of this Certificate).

4.5 The systems are compatible with concrete and are resistant to those chemicals likely to occur under normal service conditions. However, care must be taken to prevent contact with mould oils and hydrocarbons.

4.6 The systems must be fully protected as soon as practicable after they are installed, in accordance with the Certificate holder's instructions.

5 Practicability of installation

Installation of the systems must only be carried out by installers who have been trained by the Certificate holder.

6 Resistance to water and water vapour

6.1 The systems, including joints, when completely sealed and consolidated are impervious to water and will adequately resist the passage of water under hydrostatic pressure from the ground, and so enable a structure to meet the relevant requirements of the national Building Regulations.

6.2 The waterproofing membranes Colphene BSW H and Colphene BSW V, including joints, remained watertight when tested at a hydrostatic pressure of up to 600 kPa.

7 Resistance to underground gases

7.1 Colphene BSW V membrane will restrict the ingress of radon, methane and carbon dioxide into buildings from landfill and naturally occurring sources and satisfy the performance criteria for a gas-resistant membrane as defined in BS 8485 : 2015. In addition, Colphene BSW H will restrict the ingress of radon gas from naturally occurring sources.

7.2 The other membranes do not constitute gas membranes as defined in BS 8485 : 2015 and cannot individually be awarded a gas score as described in BS 8485 : 2015. However, when used in addition to a Type B structural barrier waterproofing in basement floor and wall constructions conforming to BS 8102 : 2009, Grades 2 or 3 waterproofing, the membranes will contribute towards the structural barrier in restricting the ingress of methane and carbon dioxide into a building from landfill and naturally occurring sources, with reference to BS 8485 : 2015, Table 5.

7.3 Measured gas permeability/diffusion values of the membranes, including joints, are given in Table 2.

Table 2 Gas permeabilities of the membranes

	Gas transmission (ISO 15105-1) ($ml \cdot m^{-2} \cdot day^{-1} \cdot atm^{-1}$)		Radon diffusion coefficient (ISO/TS 11665-13) ($m^2 \cdot s^{-1}$)
	Methane(1) (unjointed/jointed)	Carbon dioxide (unjointed/jointed)	unjointed / jointed
Colphene BSW V	1.9/ 27.3	25.6 / 265	1.4×10^{-11} / 1.1×10^{-11}
Colphene BSW H	103 / -	507 / -	2.9×10^{-11} / -
Colphene BSW Unilay HP	69.3 / -	358 / -	-
Colphene 1500	236 / 162(2)	1256 / 716(2)	2.3×10^{-11} / 2.3×10^{-11}(2)
Colphene Protec Fondation	75.4 / -	420 / -	-

(1) BS 8485 : 2015 requires that the methane transmission measured in accordance with BS ISO 15105-1 : 2007 for a gas-resistant membrane is < 40 $ml \cdot m^{-2} \cdot day^{-1} \cdot atm^{-1}$.

(2) 100 mm self-adhesive overlap.

7.4 In the opinion of the BBA, Colphene BSW V and Colphene BSW H satisfy the criterial for a radon gas-resistant membrane in BRE Report BR 211 : 2015.

7.5 For gas control applications, the membrane must be linked to other compatible gas-resistant membranes and damp-proof courses to ensure that the protection extends over the entire footprint of the structure. The Certificate holder must be consulted for suitable products.

8 Resistance to mechanical damage

8.1 The systems, can accept the limited foot traffic and light loads associated with the installation and maintenance operations without damage.

8.2 When installed, the systems are capable of accommodating the minor structural movements likely to occur under normal service conditions.

8.3 The systems can be damaged by sharp objects, and care must be taken to protect exposed surfaces during construction and backfilling operations.

8.4 Where damage does occur, the membrane must be repaired as soon as practicable (see section 15).

9 Adhesion

The adhesion of the system to properly prepared concrete substrate is satisfactory.

10 Effect of temperature

The systems will not be adversely affected by temperatures likely to occur during the installation or in-service.

11 Maintenance

As the systems are confined and have suitable durability, maintenance is not required. Any damage occurring during the installation must be repaired prior to backfilling (see section 15).

12 Durability

The systems, when fully protected and subjected to normal service conditions, will provide an effective barrier to the transmission of water under hydrostatic pressure, water vapour and (systems incorporating Colphene BSW V) will restrict the ingress of radon, methane and carbon dioxide for the life of the structure in which they are incorporated.

Installation

13 General

13.1 Colphene Post-Applied Membranes Systems must be installed in accordance with the relevant requirements of BS 8000-0 : 2014, BS 8000-4 : 1989, BS 8102 : 2009, section 3 of CP 102 : 1973, the Certificate holder's instructions and this Certificate.

13.2 The systems can be installed under dry conditions and at ambient air temperatures between +5°C and 45°C. Care should be taken to ensure that there is no surface condensation when applying the products at low temperatures. Self-adhesive membranes should be applied at ≥ +10°C.

13.3 All surfaces to which the systems are applied must be sound.

13.4 Horizontal surfaces should be a smooth and level concrete blinding or well-compacted granular fill, and must be free from loose aggregate or other sharp protrusions and be in accordance with the Certificate holders installation instructions.

13.5 Vertical surfaces should have a smooth finish, free from loosely adhering material and sharp protrusions. Vertical surfaces of brickwork or blockwork must be rendered or flush-pointed to provide a smooth level surface.

13.6 Sharp edges should be chamfered to avoid damage to the membranes, and a cant strip applied at changes of direction from the vertical to horizontal.

13.7 Vertical surfaces should be primed in accordance with the Certificate holder's instructions using one of the primers detailed in section 1.4 of this Certificate.

14 Procedure

14.1 If required, a suitable geosynthetic drainage membrane should be applied to vertical earth-retention surfaces, with the filter side facing the soil-retention system. The drainage membrane should be mechanically fixed in accordance with the Certificate holder's instructions.

14.2 Adjacent sheets are laid, ensuring the specified side overlaps are observed and using the self-adhesive part of the selvedge to ensure laps are properly aligned. The side lap is completely sealed by heat welding the thermofusible part of the selvedge, where applicable, using a gas torch or by hot air welding. End laps must be a minimum of 150 mm, and staggered by at least 300 mm to avoid excessive localised thickness build-up, and sealed by heat welding.

14.3 Reinforcement strips of a pre-applied membrane should be welded to the horizontally applied membrane to provide reinforcement at the corner of the concrete slab, when poured, and to allow the vertical post-applied membrane to be joined to provide continuous waterproofing. The reinforcing strips should finish at the top edge of the slab when poured.

14.4 Once the concrete slab has been poured and the walls of the structure constructed, a reinforcement strip of the specified post-applied (self-adhesive or torch-on) membrane or membranes can be applied to the primed structure to run from the base of the slab and to finish at least 300 mm above the water table level.

14.5 Adjacent sheets are laid, ensuring the specified side overlaps are observed. End laps must be a minimum of 150 mm, and staggered by at least 300 mm to avoid localised build-up and heat welded.

14.6 A second layer of the appropriate membrane is then applied to cover the walls to overlap the reinforcement strips and finish at the bottom edge of the slab.

14.7 The installed membrane should then be protected from backfilling operations by a suitable drainage board or other protection.

15 Repair

15.1 Damage to a component membrane or the system must be repaired to reinstate it to the original specification in accordance with the Certificate holder's instructions.

15.2 The repair patch should extend at least 150 mm from all edges of the damaged area onto undamaged membrane.

15.3 A bridging strip of the same membrane is then applied to bridge across the repair patch and sound material by a minimum of 150 mm.

Technical Investigations

16 Tests

Tests were carried out on the membranes and coating mass, and the results assessed to determine:

- characterisation of the coating masses (needle penetration, and ring and ball softening point)
- visible defects
- unrolling at low temperature
- width and straightness
- mass per unit area
- thickness
- resistance to impact
- resistance to static loading
- flexibility at low temperature
- resistance to nail tear
- joint shear strength
- water vapour transmission
- tensile strength and elongation
- resistance to fatigue cycling (fully bonded membrane)
- peel bond to substrate
- peel bond to poured concrete
- slippage.

17 Investigations

17.1 An evaluation was made of independent tests data relating to resistance to hydrostatic pressure.

17.2 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.

Bibliography

BS 8000-0 : 2014 *Workmanship on construction sites – Introduction and general principles*

BS 8000-4 : 1989 *Workmanship on building sites – Code of practice for waterproofing*

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

CP 102 : 1973 *Code of practice for protection of buildings against water from the ground*

EN 13969 : 2004 *Flexible sheets for waterproofing – Bitumen damp proof sheets including bitumen basement tanking sheets – Definitions and characteristics*

ISO 9001 : 2015 *Quality management systems – Requirements*

18 Conditions

18.1 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.

18.2 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.

18.3 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.

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

18.5 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.

18.6 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.