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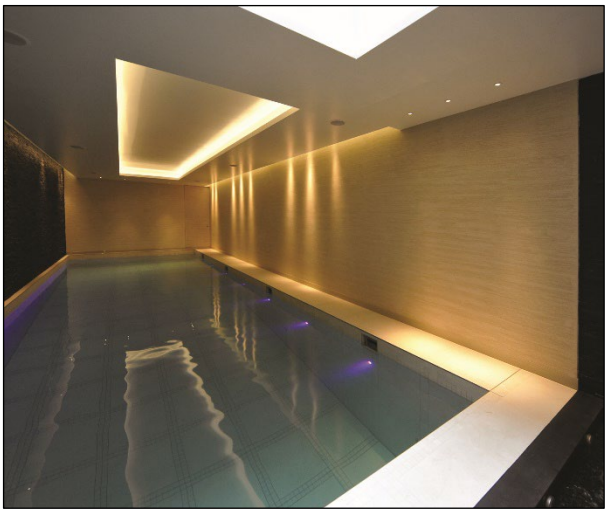
Agrément Certificate
08/4606
Product Sheet 1 Issue 6

SIKA WATERTIGHT CONCRETE CONSTRUCTION SYSTEM

SIKA WATERTIGHT CONCRETE POWDER

This Agrément Certificate Product Sheet(1) relates to Sika Watertight Concrete Powder, a combined water-resisting and high range water-reducing (HRWR)/superplasticising admixture, used to provide watertight concrete. The system is suitable for basements, swimming pools, tunnels and culverts.

(1) Hereinafter referred to as 'Certificate'.



The assessment includes

Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

Ongoing contractual Scheme elements:

- regular assessment of production
- formal 3-yearly review

KEY FACTORS ASSESSED

Section 1. Mechanical resistance and stability
Section 2. Safety in case of fire
Section 3. Hygiene, health and the environment
Section 4. Safety and accessibility in use
Section 5. Protection against noise
Section 6. Energy economy and heat retention
Section 7. Sustainable use of natural resources
Section 8. Durability

The BBA has awarded this Certificate to the company named above for the system described herein. This system 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 Sixth issue: 20 May 2024

Originally certified on 8 December 2008

Hardy Giesler
Chief Executive Officer

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SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that the use of the Sika Watertight Concrete Powder is not subject to the national Building Regulations.

Additional Information

NHBC Standards 2024

In the opinion of the BBA, Sika Watertight Concrete Powder, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 5.4 *Waterproofing of basements and other below ground structures.*

Unless it can be demonstrated that the water table is permanently below the underside of the slab, the system should be used in combination with either a Type A or C waterproofing protection 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).

Fulfilment of Requirements

The BBA has judged Sika Watertight Concrete Powder to be satisfactory for use as described in this Certificate. The system has been assessed as a combined water-resisting and high range water-reducing (HRWR)/superplasticising admixture used to provide watertight concrete for basements, swimming pools, tunnels and culverts.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the system under assessment.

Sika Watertight Concrete Powder is a combined water-resisting and HRWR/superplasticising admixture for incorporation into concrete mixes, to enhance the water resistance and durability properties of the hardened concrete.

The system is intended for use in concrete mixes at an addition of 1.75 kg per m^3 of concrete to provide watertight concrete for basements, swimming pools, tunnels and culverts, without the requirement for additional applied protection.

The use of the system with an air-entraining agent is outside the scope of this Certificate.

Product assessment – key factors

The system was assessed for the following key factors, and the outcome of the assessment is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Data were assessed for the following characteristics.

1.1 Mechanical properties

1.1.1 Results of mechanical properties tests are given in Table 1.

Table 1 Results of mechanical properties tests[1]

System assessed	Assessment method	Requirement	Result
Concrete with Sika Watertight Concrete Powder	Compressive strength to BS EN 12390-3 : 2009		
	24 hours		
	Control mix	Value achieved	15.5 MPa
	Test mix	Value achieved	18.9 MPa
Concrete with Sika Watertight Concrete Powder	Compressive strength to BS EN 12390-3 : 2009		
	28 days		
	Control mix	Value achieved	50.1 MPa
	Test mix	≥ 85% of control concrete	54.3 MPa
Concrete with Sika Watertight Concrete Powder	Flexural strength to BS EN 12390-5 : 2009		
	24 hours		
	Control mix	Value achieved	2.3 MPa
	Test mix	Value achieved	2.4 MPa
Concrete with Sika Watertight Concrete Powder	Flexural strength to BS EN 12390-5 : 2009		
	28 days		
	Control mix	Value achieved	4.5 MPa
	Test mix	Value achieved	5.1 MPa
Concrete with Sika Watertight Concrete Powder	Static modulus of elasticity to BS 1881-121 : 1983		
	Control mix	Value achieved	36500 MPa
	Test mix	Value achieved	43000 MPa

(1) Sika Watertight Concrete Powder mixed at an addition of 1.75 kg per m^3 of concrete

1.1.2 The specific effect of the system on these properties, for a particular mix and site conditions, must be evaluated through site specific trials prior to use.

1.1.3 On the basis of data assessed, the compressive strength and static modulus of elasticity of concrete containing the system are higher than that of an equivalent plain concrete.

1.1.4 On the basis of data assessed, the flexural strength of concrete containing the system is similar to that of an equivalent plain concrete.

1.1.5 Results of setting characteristics and hardening tests of concrete designed to BS EN 480-1 : 2014 are given in Table 2 of this Certificate.

Table 2 Results of setting characteristics and hardening[1]

System assessed	Assessment method	Requirement	Result
Concrete with Sika Watertight Concrete Powder	Air content to BS EN 12350-7 : 2019	Test mix ≤2.0% by volume above control mix	Pass
Concrete with Sika Watertight Concrete Powder	Plastic density to BS EN 12350-6 : 2019		
	Control mix	Value achieved	2261 $kg \cdot m^{-3}$
	Test mix	Value achieved	2292 $kg \cdot m^{-3}$
Concrete with Sika Watertight Concrete Powder	Effect on setting of concrete to BS 5075-1 : 1982		
	Initial set		
	Control mix	Value achieved	265 minutes
	Test mix	Value achieved	208 minutes
Concrete with Sika Watertight Concrete Powder	Effect on setting of concrete to BS 5075-1 : 1982		
	Final set		
	Control mix	Value achieved	370 minutes
	Test mix	Value achieved	312 minutes
Concrete with Sika Watertight Concrete Powder[2]	Slump test to BS EN 12350-2 : 2019		
	0 minutes		
	Control mix	S3	Pass
	Test mix	S3	Pass
Concrete with Sika Watertight Concrete Powder[2]	Slump test to BS EN 12350-2 : 2019		
	30 minutes		
	Control mix	S3	Pass
	Test mix	S2	Pass

Table 2 Results of setting characteristics and hardening(1)

System assessed	Assessment method	Requirement	Result
Sika Watertight Concrete Powder	Drying shrinkage to BS 1881-5 : 1970		
	Control mix	Value achieved	0.042%
	Test mix	Value achieved	0.038%
Concrete with Sika Watertight Concrete Powder	Wetting expansion to BS 1881-5 : 1970		
	Control mix	Value achieved	0.019%
	Test mix	Value achieved	0.010%

(1) Sika Watertight Concrete Powder mixed at an addition of 1.75 kg per m^3 of concrete
(2) Control mix water cement ratio: 0.51 and Test mix water cement ratio: of 0.43

1.1.6 The effect of the system for a specific mix and site conditions must be evaluated through site trials prior to use.

1.1.7 On the basis of data assessed, the setting time of concrete mixes containing the system will be accelerated compared with plain concrete. The speed with which it will set will depend on the concrete mix design used and the ambient temperature during placing and curing.

1.1.8 On the basis of the data assessed, the drying shrinkage of concrete containing the system is similar to that of an equivalent plain concrete.

1.1.9 On the basis of data assessed, the wetting expansion of concrete containing the system is lower than that of an equivalent plain concrete.

2 Safety in case of fire

Not applicable.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Water penetration and water vapour permeability

3.1.1 Results of water penetration and water vapour permeability properties tests are given in Table 3.

Table 3 Results of water penetration and water vapour permeability properties tests(1)

System assessed	Assessment method	Requirement	Result
Concrete with Sika Watertight Concrete Powder	Capillary absorption to BS EN 480-5 : 2005		
	7 days	≤50% by mass of control concrete	Pass
	90 days	≤60% by mass of control concrete	Pass
Concrete with Sika Watertight Concrete Powder	Determination of water permeability to Valenta calculation method		
	Control mix	Value achieved	2.95×10^{-12} m·s^{-1}
	Test mix	Value achieved	5.35×10^{-13} m·s^{-1}
Concrete with Sika Watertight Concrete Powder	Water vapour resistivity to BS 3177 : 1959		
	Control	Value achieved	1005 MN·s·g^{-1}·m^{-1}
	Test mix	Value achieved	1569 MN·s·g^{-1}·m^{-1}

(1) Sika Watertight Concrete Powder mixed at an addition of 1.75 kg per m^3 of concrete.

3.1.2 The specific effect of the system on these properties, for a particular mix and site conditions, must be evaluated through site specific trials prior to use.

3.1.3 On the basis of data assessed, concrete containing the system has a higher resistance to water vapour diffusion than an equivalent plain concrete.

3.1.4 On the basis of data assessed, concrete containing the system has greater resistance to water penetration and water absorption than an equivalent plain concrete.

3.1.5 The appropriate thickness for concrete with a specific resistivity to achieve a water vapour resistance of 250 or 500 $MN \cdot s \cdot g^{-1}$ is given by:

For 250 $MN \cdot s \cdot g^{-1}$ — t = 200 $MN \cdot s \cdot g^{-1}$ / vapour resistivity, or t = 250 $MN \cdot s \cdot g^{-1}$ / 5 x μ
For 500 $MN \cdot s \cdot g^{-1}$ — t = 550 $MN \cdot s \cdot g^{-1}$ / vapour resistivity, or t = 500 $MN \cdot s \cdot g^{-1}$ / 5 x μ

where:

t = concrete thickness (m)
μ = water vapour resistance factor.

4 Safety and accessibility in use

Data were assessed for the following characteristics.

4.1 Reinforcement protection

4.1.1 Results of reinforcement protection tests are given in Table 4.

Table 4 Results of reinforcement protection test

System assessed	Assessment method	Requirement	Result
Concrete with Sika Watertight Concrete Powder(1)	Bond strength to steel to BBA Internal Test Specification T1/19	Comparable adhesion to control	Pass

(1) Sika Watertight Concrete Powder mixed at an addition of 1.75 kg per m^3 of concrete.

4.1.2 The specific effect of the system on these properties, for a particular mix and site conditions, must be evaluated through site-specific trials prior to use.

4.1.3 The Certificate holder has declared the chloride ion content of the system as < 0.1%.

4.1.4 The Certificate holder has declared that the system complies with the corrosion behaviour requirements given in BS EN 934-1 : 2008, Clause 5.1, and is labelled accordingly.

4.1.5 Based on the data assessed, the high level of alkalinity required to prevent corrosion of the reinforcement (pH>13) will not be adversely affected by the incorporation of the system into concrete.

4.1.6 Corrosion of reinforcement is normally caused by the ingress of chloride to the steel or by the reduction in alkalinity of the concrete by the diffusion of carbon dioxide. The reduced permeability of concrete containing the system will slow down diffusion of aggressive agents into the concrete and so provide improved protection against reinforcement corrosion.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

7 Sustainable use of natural resources

Not applicable.

8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the system were assessed.

8.2 Specific test data were assessed as shown in Table 5.

Table 5 Results of durability tests

System assessed	Assessment method	Requirement	Result
Concrete with Sika Watertight Concrete Powder[(1)]	Alkali content (Na_2O equivalent) to EN 480-12 : 1998	<4%	Pass
Concrete with Sika Watertight Concrete Powder[(1)]	Resistance to freeze/thaw to DD CEN/TS 12390-9 : 2006	No cracks or significant scaling vs control concrete	Pass
Concrete with Sika Watertight Concrete Powder[(1)]	Determination of the resistance to efflorescence of concrete to BBA Internal Test Specification T1/16	No efflorescence observed	Pass
Sika Watertight Concrete Powder	Sodium oxide equivalent to EN 480-12 : 1998	Value achieved	0.28%

(1) Sika Watertight Concrete Powder mixed at an addition of 1.75 kg per m^3 of concrete

8.2.1 The specific effect of the system on these properties for a particular mix and site conditions, must be evaluated through site-specific trials prior to use.

8.2.2 The Certificate holder's declared value of <0.4% must be used when calculating the contribution of the system to the total alkali content of a given concrete mix. In turn, this can be used to assess the susceptibility of that concrete to alkali-silica reaction (ASR).

8.2.3 Based on data assessed, the lower permeability of concrete containing the system reduces the ingress of sulfates. However, if sulfate-resistant concrete is required, the advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.

8.2.4 Use of the system reduces the leaching of lime from the hydrated cement in the concrete.

8.2.5 Concrete containing the system has a similar resistance to freeze/thaw to that of an equivalent plain concrete.

8.2.6 Concrete containing the system has a greater resistance to carbon dioxide diffusion than an equivalent plain concrete.

8.3 Service life

8.3.1 Under normal service conditions, concrete containing the system is more durable than an equivalent plain concrete owing to its reduced permeability.

8.3.2 Where exposure to aggressive soil conditions or chemicals is anticipated, a full assessment of the site must be made. In these situations, the Certificate holder must be consulted on the suitability of the system, but such advice is outside the scope of this Certificate.

PROCESS ASSESSMENT

Information provided by the Certificate holder was assessed for the following factors:

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.1 The design process was assessed and the following requirements apply in order to satisfy the performance assessed in this Certificate.

9.1.2 Concrete containing the system must be designed in accordance with BS EN 206 2013 Section 5.2.3.5 and BS 8500-2 : 2023 Clause 5.2 for use as all normal types, including precast, pre-stressed, post-tensioned, ready-mixed, reinforced, slip formed, sprayed and pumped concretes. For additional information on required thickness of concrete, the advice of the Certificate holder may be sought, but such advice is outside the scope of this Certificate.

9.1.3 The system is compatible with cement blends containing fly ash, ground granulated blast-furnace slag and silica fume, as defined in BS EN 197-1 : 2011.

9.1.4 Structures built incorporating the system must be designed to the relevant clauses of BS 8102 : 2022, and BS EN 1992-1-1 : 2023, BS EN 1992-1-2 : 2023 and BS EN 1992-3 : 2006 and their UK National Annexes.

9.1.5 Concrete containing the system is suitable for Type B constructions as described in BS 8102 : 2022, and can satisfy the requirements for all grades defined in Table 2 of this Standard. For Grade 3 (where control of water vapour is required), it will be necessary to provide a mix with a sufficiently low vapour permeability in combination with an adequate section thickness (see section 3.1 of this Certificate). The use of a suitable ventilation, dehumidification or air-conditioning, appropriate to the intended use, must also be considered.

9.1.6 The concrete must have a minimum cement content of 350 $kg \cdot m^{-3}$ and must be batched with a maximum water/cement ratio of 0.45 to achieve a minimum consistence of S3. Further details of suitable mixes can be obtained from the Certificate holder or their approved representatives, but such advice is outside the scope of this Certificate.

9.1.7 When an additional superplasticiser is required, it must be added after the addition of the system and in accordance with the supplier's recommendations.

9.1.8 Once the fresh concrete is mixed, further materials must not be added to the fresh concrete.

9.1.9 Joints must be designed with waterstops as recommended in BS 8102 : 2022, to maintain the watertightness of the whole structure. The advice of the Certificate holder should be sought on particular applications.

9.1.10 Basements for dwellings must be designed in accordance with the guidance given in the *Guidance Document — Basements for dwellings*(1).

(1) Published by Basement Information Centre, Product code: TBIC/007.

9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation must be carried out in accordance with this Certificate and the Certificate holder's instructions.

9.2.3 Concrete containing the system must not be placed at temperatures lower than 5°C.

9.2.4 Concrete containing the system must be fully compacted.

9.2.5 The concrete must be cured strictly in accordance with BS EN 13670 : 2009, BS EN 1992-1-1 : 2023 and its UK National Annex, and the Certificate holder's instructions.

9.2.6 Penetrations of the concrete, such as pipe entries or formwork ties, must be securely sealed to maintain watertightness. The advice of the Certificate holder must be sought on suitable systems, but such advice and materials are outside the scope of this Certificate.

9.3 Workmanship

Practicability of installation was assessed, on the basis of the Certificate holder's information and a site visit to witness an installation in progress. To achieve the performance described in this Certificate, concrete containing the system must be placed, compacted and cured by operatives with experience of using conventional concreting methods and equipment.

9.4 Maintenance and repair

For a specific installation, the maintenance regime should be considered to ensure that the required design life of the concrete is achieved.

10 Manufacture

10.1 The production processes for the system have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and system testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

10.2 The BBA has undertaken to review 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.

11 Delivery and site handling

11.1 The Certificate holder stated that the system is supplied in 1.75 kg water-soluble bags, which are packed in sixes, into 25-litre containers. The containers, weighing approximately 12 kg each, are packed 18 to a pallet, the total pallet weight being approximately 200 kg.

11.2 Each 25-litre container bears the Certificate holder's name, system name, batch number, Health and Safety information and the BBA logo incorporating the number of this Certificate.

11.3 Delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.3.1 The system must be stored in sealed original containers in a dry environment at temperatures between 5 and 25°C.

11.3.2 When handling, the normal Health and Safety procedures associated with cementitious materials must be observed.

ANNEX A – SUPPLEMENTARY INFORMATION

Supporting information in this Annex is relevant to the system but has not formed part of the material assessed for the 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.

CLP Regulations

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

CE marking

The Certificate holder has taken the responsibility of CE marking the system in accordance with harmonised European Standard EN 934-2 : 2009, Table 9.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO/IEC 9001 : 2015 and BS EN ISO/IEC 14001 : 2015 by BSI (Certificates CH18/1439 and CH18/1438 respectively).

Additional information on installation

Mix design

A.1 Concrete containing the system is normally supplied as ready-mixed concrete but may be prepared on site where there is adequate mix control(1). Concrete preparation on site must be carried out in accordance with BS 8000-0 : 2014, the Certificate holder's instructions and this Certificate.

(1) NHBC will only accept the use of the admixture where it is included at the concrete batching plant which must also be either QSRMC or BSI Kitemark registered.

A.2 The workability of the concrete can be adjusted using a suitable(1) water reducing or superplasticising admixture complying with BS EN 934-2 : 2009, to ensure that the maximum water/cement ratio given in section 9.1.6 of this Certificate is not exceeded. Specific admixtures have not been considered and are outside the scope of this Certificate.

(1) The Certificate holder's advice must be sought regarding the suitability and compatibility of water reducing or superplasticising admixtures, but such advice and materials are outside the scope of this Certificate. Admixtures must be evaluated before use and site trials carried out to establish the appropriate dose required.

Site mixing

A.3 The system is added to the mixer at the correct dose prior to batching the concrete constituents.

A.4 The resulting concrete should be mixed for a minimum of five minutes and in accordance with the Certificate holder's instructions, to ensure even distribution of the system throughout the concrete.

A.5 Where the system is to be added to concrete on site, care must be taken to ensure that adequate mix control is available.

Placing

A.6 Concrete containing the system must be placed in the same way as normal concrete, in accordance with BS 8000-0 : 2014, BS EN 13670 : 2009, the Certificate holder's health and safety guidance, and the normal routine precautions for handling concrete.

Finishes

A.7 When water-based products are used to coat the hardened concrete, a bonding agent may be needed. For specific cases, advice must be sought from the Certificate holder, but such advice and materials are outside the scope of this Certificate.

Bibliography

BBA Internal Test Specification T1/16 *Determination of the resistance to efflorescence of concrete*
BBA Internal Test Specification T1/19 *Bond strength to steel of concrete and cementitious mortars*

BS EN 197-1 : 2011 *Cement — Composition, specifications and conformity criteria for common cements*

BS EN 206 : 2013+A2 : 2021 *Concrete — Specification, performance, production and conformity*

BS EN 480-1 : 2014 *Admixtures for concrete, mortar and grout — Test methods — Reference concrete and reference mortar for testing*
BS EN 480-5 : 2005 *Admixtures for concrete, mortar and grout. Test methods. Determination of capillary absorption*
EN 480-12 : 1998 *Admixtures for concrete, mortar and grout — Test methods — Determination of alkali content of admixtures*

BS EN 934-1 : 2008 Admixtures for concrete, mortar and grout — Common requirements
BS EN 934-2 : 2009+A1 : 2012 Admixtures for concrete, mortar and grout — Concrete admires — Definitions and requirements, conformity, marking and labelling
EN 934-2 : 2009+A1 : 2012 *Admixtures for concrete, mortar and grout — Concrete admires — Definitions and requirements, conformity, marking and labelling*

BS 1881-5 : 1970 *Testing concrete — Methods of testing hardened concrete for other than strength*
BS 1881-121 : 1983 *Testing concrete — Method for determination of static modulus of elasticity in compression*

BS EN 1992-1-1 : 2023 *Eurocode 2 : Design of concrete structures — General rules and rules for buildings*
NA to BS EN 1992-1-1 : 2023 *UK National Annex to Eurocode 2 : Design of concrete structures — General rules and rules for buildings*
BS EN 1992-1-2 : 2023 *Eurocode 2 : Design of concrete structures — General rules — Structural fire design*
NA to BS EN 1992-1-2 : 2023*UK National Annex to Eurocode 2: Design of concrete structures — Structural fire design*
BS EN 1992-3 : 2006 *Eurocode 2: Design of concrete structures — Liquid retaining and containing structures*
NA to BS EN 1992-3 : 2006 UK National Annex to *Eurocode 2: Design of concrete structures — Liquid retaining and containing structures*

BS 3177 : 1959 *Method for determining the permeability to water vapour of flexible sheet materials used for packaging*

BS 5075-1 : 1982 *Concrete admixtures — Specification for accelerating admixtures, retarding admixtures and water reducing admixtures*

BS 8000-0 : 2014+A1 : 2024 *Workmanship on construction site — Introduction and general principles*

BS 8102 : 2022 *Code of practice for protection of below ground structures against water from the ground*

BS 8500-2 : 2023 *Concrete — Complementary British Standard to BS EN 206 — Specification for constituent materials and concrete*

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

BS EN 12350-2 : 2019 *Testing fresh concrete — Slump test*
BS EN 12350-6 : 2019 *Testing fresh concrete — Density*
BS EN 12350-7 : 2019 *Testing fresh concrete — Air content — Pressure methods*

BS EN 12390-3 : 2009 *Testing hardened concrete — Compressive strength of test specimens*
BS EN 12390-5 : 2009 *Testing hardened concrete — Flexural strength of test specimens*

BS EN ISO/IEC 14001 : 2015 *Environmental Management systems — Requirements with guidance for use*

BS EN 13670 : 2009 *Execution of concrete structures*

DD CEN/TS 12390-9 : 2006 *Testing hardened concrete — Freeze-thaw resistance — Scaling*

VINCI Technology Centre test procedure *Determination of water permeability to Valenta*

Conditions of Certificate

Conditions

1 This Certificate:

- relates only to the product 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.

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.

3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product 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.

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

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

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product 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.

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