

Vandex Isoliermittel GmbH

Industriestraße 21
21493 Schwarzenbek
Germany

Tel: 00 49 4151 89150

e-mail: vandex@info.com

website: www.vandex.com



Agrément Certificate

24/7099

Product Sheet 2 Issue 1

VANDEX WATERPROOFING SYSTEMS

VANDEX BB75

This Agrément Certificate Product Sheet⁽¹⁾ relates to Vandex BB75, a cementitious waterproofing compound for use as below-ground internal and external waterproofing for new and existing concrete structures.

(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 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 issue: 1 February 2024

Hardy Giesler
Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).

Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly. The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément

1st Floor Building 3
Croxley Park, Watford
Herts WD18 8YG

©2024

tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk

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 Vandex BB75, 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 Building Regulations 2010 (England and Wales) (as amended)

Requirement:	C2(a)	Resistance to moisture
Comment:		The product will enable a structure to satisfy this Requirement. See section 3 of this Certificate.
Requirement:	7(1)	Materials and workmanship
Comment:		The product is acceptable. See sections 8 and 9 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The product can contribute to a construction satisfying this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards – construction
Standard:	3.4	Moisture from the ground
Comment:		The product will enable a structure to satisfy the requirements of this Standard with reference to clauses 3.4.1 ⁽¹⁾⁽²⁾ , 3.4.5 ⁽¹⁾⁽²⁾ and 3.4.7 ⁽¹⁾⁽²⁾ . See section 3 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 – conversions
Comment:		Comments in relation to 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)(ii)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	28(a)(b)	Resistance to moisture and weather
Comment:		The product will enable a structure to satisfy the requirements of this Regulation. See section 3 of this Certificate.

Additional Information

NHBC Standards 2024

In the opinion of the BBA, Vandex BB75, 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*, Clause 5.1.20 *Damp-proofing concrete floors*, for use below the slab, 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 product should be used in combination with either Type B or C waterproofing protection.

In the opinion of the BBA, the use of the product is acceptable on existing structures when installed and used in accordance with this Certificate and *NHBC Standards for Conversions and Renovations*, taking account of the other relevant guidance within this document on the suitability of the substrate to receive the system, and where necessary, the relevant Chapters of *NHBC Standards 2024*.

Fulfilment of Requirements

The BBA has judged Vandex BB75 to be satisfactory for use as described in this Certificate. The product has been assessed for use as below-ground internal and external waterproofing for new and existing concrete structures.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the product under assessment. Vandex BB75 is a grey cementitious compound containing Portland cement, graded sands, aggregates and chemical additives. It is supplied in powder form to be mixed with water on site and applied as a slurry coat.

Ancillary Items

The Certificate holder recommends the following ancillary items for use with the product, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- Vandex Plug — a cement-based, quick-setting hydraulic compound used to staunch running water or seepage through concrete or masonry
- Vandex Refurbishment Plaster White — a cementitious renovating plaster.

Application

Vandex BB75 is satisfactory for use as a fully bonded Type A waterproofing protection as defined in BS 8102 : 2022 for the waterproofing of new or existing structures.

The product can be used internally and externally on concrete substrates to provide an effective barrier to the transmission of liquid water where Grade 1 to 3 waterproofing protection is required, as defined in BS 8102 : 2022 as:

- interior and exterior waterproofing for concrete, brick, stone and block substrates
- waterproofing for concrete floors
- a waterproofing system eg reservoirs tanks, pools.

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 that dampness does not occur.

Product assessment – key factors

The product was assessed for the following key factors, and the outcome of the assessments 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 Strength and stability

1.1.1 Results of strength and stability tests are given in Table 1.

Table 1 Strength and stability results

Product assessed	Assessment method	Requirement	Result	
Vandex BB75	Bond strength to a BBA method	Value achieved	3.2 N·mm ⁻²	
	Bond strength to a BBA method	Value achieved	2.21 N·mm ⁻²	
	Compressive strength to DIN 1164-7 at 28 days	Value achieved	42 N·mm ⁻²	
	Compressive strength to Test Principles DS Storage to DIN 1164 at 28 days	Value achieved	43.9 N·mm ⁻²	
	Flexural strength to DIN 1164-7 at 28 days	Value achieved	8.1 N·mm ⁻²	
	Flexural strength to DIN 1164 at 28 days	Value achieved	7.6 MPa	
	Dynamic modulus of elasticity to DIN 1164	Value achieved	2.75 x 10 ⁴ N·mm ⁻²	
	Shrinkage Instructions for Cementitious, Rigid and Flexible Waterproofing Slurries	Value achieved	1 day	0.28 mm·m ⁻¹
			2 days	0.54 mm·m ⁻¹
			7 days	1.02 mm·m ⁻¹
			14 days	1.88 mm·m ⁻¹
			28 days	2.06 mm·m ⁻¹
			50 days	2.18 mm·m ⁻¹
	Shrinkage and swelling to Test Principles DS	Value achieved	2 days	0.06 mm·m ⁻¹
7 days			1.25 mm·m ⁻¹	
28 days			1.56 mm·m ⁻¹	
90 days			1.75 mm·m ⁻¹	
118 days			0.42 mm·m ⁻¹	

1.1.2 On the basis of the data assessed, the product has satisfactory mechanical properties.

1.1.3 The product is not intended to provide a decorative finish. Discolouration, efflorescence and lime bloom may occur on the surface of the products, but this will not affect their waterproofing properties.

2 Safety in case of fire

Not applicable.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Properties in relation to water and water vapour

3.1.1 Results of properties in relation to water tests are given in Table 2.

Table 2 Properties in relation to water results

Product assessed	Assessment method	Requirement	Result
Vandex BB75 Two coats	Resistance to liquid water under pressure to BS EN 12390-8 Trowel and spray application	Value achieved	5 bar
	Resistance to liquid water under pressure to US Corps of Engineers CRD D 48-77 Negative side	Value achieved	6.9 bar
	Resistance to liquid water under pressure to DIN 1048-1 Active water pressure	Value achieved	7 bar
	Resistance to liquid water under pressure to DIN 1048 Passive water pressure	Value achieved	7 bar

3.1.2 On the basis of data assessed, the product adequately resists the passage of moisture from the ground and so satisfies the requirements of the national Building Regulations.

3.1.3 For the purpose of assessing the risk of interstitial condensation, the water vapour resistance factor (μ) for the product should be taken as 81.

3.1.4 On the basis of its cementitious composition, the product may be used in class DS1 soils or groundwater as defined in BRE Special Digest 1 : 2005 see Table 5 of this Certificate.

Table 5 Concentration of sulfates

Design sulfate class for site	2:1 water/soil extract (SO ₄ mg per litre)	Groundwater (SO ₄ mg per litre)	Total potential (SO ₄ %)
DS1	<500	<400	<0.24

3.1.5 Where the substrate has a high sulfate content, or efflorescing, the advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.

3.1.6 The Certificate holder can provide an analytical service on samples of substrate, soil and groundwater, but such advice is outside the scope of this Certificate.

4 Safety and accessibility in use

Not applicable.

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 product were assessed.

8.2 Under normal service conditions, the product will have a life at least equivalent to the structure in which it is incorporated, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

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 by the BBA against the requirements of BS 8000-4 : 1989, CP 102 : 1973 Section 3, this Certificate and the Certificate holder's instructions, and the following requirements apply in order to satisfy the performance assessed in the Certificate.

9.1.2 New buildings must be designed to withstand the hydrostatic pressure expected in service. The product must not be applied until structural movement owing to curing has occurred.

9.1.3 The product is unable to accommodate movement owing to settlement and can only be used where settlement is not anticipated, or in conjunction with waterproof movement joints. The Certificate holder can advise on suitable materials for such joints, but such advice and materials are outside the scope of this Certificate.

9.1.4 Special measures are necessary to avoid breaching the waterproof render when attaching fixings. The measures include:

- the use of epoxy resin or polyurethane adhesives to bond lightweight fixing to the coated surface
- coating of recesses, made in substrate to accept heavy-duty fittings with the product to form waterproof pockets. These are filled with an appropriate mortar and coated with the products to provide continuity of the surface coating
- the use of floor-standing supports.

9.1.5 If these techniques cannot be applied and it is necessary to breach the coating, the recess formed in the substrate must be filled with the product.

9.1.6 The product is vulnerable to damage during installation and in service, particularly in heavily trafficked areas where there is a risk of impact or abrasion.

9.1.7 The product can be protected externally by boarding or a sand/cement mix, and internally by a suitable cement-based renovating plaster. The Certificate holder can advise on suitable materials, but such advice and materials are outside the scope of this Certificate.

9.1.8 Floors waterproofed with Vandex BB75 must be protected with a suitable floor levelling compound or sand cement screed.

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, the Certificate holder's instructions and the requirements of BS 8000-0 : 2014, BS 8000-3 : 2001 and BS 8000-4 : 1989. A summary of instructions and guidance is provided in Annex A of this Certificate.

9.2.3 Application of the product must not be attempted during heavy rain, at temperatures below 5°C nor to a frozen substrate.

9.2.4 Existing water infiltration must be investigated and rectified prior to installation of the products.

9.2.5 Continuity must be maintained with any membrane (new or existing) in the basement floor using a flexible waterproof joint. The Certificate holder can advise on suitable detailing for a particular application, but this advice is outside the scope of this Certificate.

9.2.6 Before application, any plaster, render or other substances that could inhibit bonding must be removed back to the substrate. All mortar joints must be flush-pointed, defects made good and irregular surfaces given a trowelled or floated finish with an appropriate sand/cement mix. When installing a render, the mortar joints should be raked out to a depth of a least 10 mm.

9.2.7 All surfaces must be clean, sound, keyed and free from existing coatings or contamination, eg paint, laitance, dirt and surface water.

9.2.8 If the surface shows frost damage, the affected area must be removed and replaced before the product is applied. The Certificate holder can advise on suitable material for a particular application, but such advice is outside the scope of this Certificate.

9.2.9 The substrate must be saturated, but free from surface water, before the product is applied.

9.2.10 Setting and hardening of the product will depend on temperature and humidity. The product must be protected from rain for a minimum period of 24 hours and kept damp and protected from frost for a minimum period of five days after application, using suitable plastic sheeting and insulating mats. Curing compounds should not be used.

9.3 Workmanship

Practicability of installation was assessed by the BBA, on the basis of the Certificate holder's information and site visits to witness installations in progress. To achieve the performance described in this Certificate, installation of the product must be carried out by a competent general builder, or a contractor, experienced with this type of product.

9.4 Maintenance and repair

As the product is applied to concrete substrates and has suitable durability, maintenance is not required.

10 Manufacture

10.1 The production processes for the products 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 product 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 product is delivered to site in 25 kg bags polythene-lined bags. Each sack or container carries a label bearing the product name, Certificate holder's name, batch number, health and safety information and the BBA logo incorporating the number of this Certificate.

Supporting information in this Annex is relevant to the product 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 Regulation

The Certificate holder has taken the responsibility of classifying and labelling the product 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 product in accordance with harmonised European Standard EN 1504-3 : 2005.

Management Systems Certification for production

The management systems of Vandex Isoliermittel GmbH have been assessed and registered as meeting the requirements of ISO 9001 : 2015 and ISO 14001 : 2015 by SQS Swiss Association for Quality Management Systems (Certificate CH-43652).

Additional information on installation

Surface preparation

A.1 Water infiltration through the surface to be treated is either diverted by drainage or concentrated at weepholes which are plugged with Vandex Plug after the application of the final coat.

A.2 A new concrete surface may be bush hammered, scabbled or grit-blasted to remove any laitance.

Application

A.3 A slurry is prepared by mechanically mixing 25 kg of Vandex BB75 with 4.5 to 6 litres of potable water.

A.4 The product is applied to the substrate in one or two applications, dependent on the type of application required, to achieve the coating thickness and application rate given in Table 6.

Table 6 Coating thickness and application rate

Type of water ingress	Overall application rate ⁽¹⁾ (kg·m ⁻²)	Minimum coating thickness (mm)
Pressureless water	3 - 4	1.5
Water under pressure	4 - 6	2.0

(1) The application rate will vary, depending on the surface roughness of the substrate.

A.5 The first coat of the product is applied by vigorously working it into, and laying it over, the surface using a masonry brush, or by trowelling, or spraying at a maximum coverage rate of 4 kg·m⁻². Application should be carried out to ensure that a flowing edge is maintained. If this is not possible, when application is continued the previously applied coat should be overlapped.

A.6 As soon as the first coat has hardened sufficiently (after approximately five to eight hours), the second coat may be applied by brush, spray or trowel at a maximum coverage rate of 4 kg·m⁻².

- A.7 Each coat is examined for damage and areas of incomplete coverage before the next coat is applied.
- A.8 The mixed product should be used within 45 minutes and discarded if re-stirring does not restore its workability.
- A.9 Once the final coating has fully hardened, the weeps should be stopped using Vandex Plug. Any recesses are coated with Vandex BB75, filled with an appropriate mortar and coated with Vandex BB75 to provide continuity of the surface coating.
- A.10 A coat of proprietary cement-based plaster or sand/cement mix may be applied to protect the product from damage during service.
- A.11 Floors waterproofed with the product are protected by a screed finish.
- A.12 If the product is applied to the inside of a basement wall, the structure will remain cold and wet, with subsequent risks of condensation and frost damage.
- A.13 The condensation risk can be reduced by the application of Vandex Refurbishment Plaster White or other proprietary, lightweight, cement-based renovating plaster, and the provision of adequate heating and ventilation and/or the use of a dehumidifier.

Bibliography

BRE Special Digest: 2005 *Concrete in aggressive ground*

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

BS 8000-3 : 2001 *Workmanship on building sites — Code of practice for masonry*

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

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

BS EN 12390-8 *Test hardened concrete — Depth of penetration of water under pressure*

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

DIN 1048 : *Test Procedure for Water Permeability Test (Water Penetration Depth)*

DIN 1048-1 : *Testing Concrete — Testing of Fresh Concrete — specifies methods of testing the consistence, density, water content and air content of freshly mixed concrete*

DIN 1164 : *Special cement compositions, requirements and conformity evaluation*

DIN 1164-7 : *Portland-, Iron Portland-, Blast-furnace-, and Trass Cement — Determination of Strength*

EN 1504-3 : 2005 *Products and systems for the protection and repair of concrete structures — Definitions, requirements, quality control and evaluation of conformity — Structural and non-structural repair*

Test Principles DS *Principles for testing Minerals Sealing Slurries — Determination of bond strength, bulk density, compressive strength, consistency of volume, dynamic modulus of elasticity, flexural strength, setting time, separation of mixing water, shrinkage, swelling, water impermeability, water retention and water-soluble halogen content*

ISO 9001 : 2015 *Quality management systems — Requirements*

ISO 14001 : 2015 *Environmental management systems — Specification with guidance for use*

US Corps of Engineers CRD D 48-77 *Resistance to liquid water under pressure*

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.