



## Vandex (UK) Ltd

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**Agrément  
Certificate  
No 90/2516**  
Third issue\*

Designated by Government  
to issue  
European Technical  
Approvals

## VANDEX BB 75

Produit d'étanchéité hydraulique  
Hydraulisches Dichtungsmittel

## Product



• THIS CERTIFICATE RELATES TO VANDEX BB 75, A CEMENTITIOUS WATERPROOFING COMPOUND.

• Vandex BB 75 is used in one or two coats for internal or external waterproofing of new or existing structures of concrete, brickwork, stonework and blockwork, or to waterproof water retaining structures.

• Vandex BB 75 is applied by brush, spray or trowel by competent contractors.

## Regulations

### 1 The Building Regulations 2000 (as amended) (England and Wales)

 The Secretary of State has agreed with the British Board of Agrément the aspects of performance to be used by the BBA in assessing the compliance of waterproofing/tanking (walls and floors) with the Building Regulations. In the opinion of the BBA, Vandex BB 75, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements.

Requirement: C4

Resistance to weather and ground moisture

Comment:

The product satisfies this Requirement. See section 13 of this Certificate.

Requirement: Regulation 7

Materials and workmanship

Comment:

The product is acceptable. See section 13 of this Certificate.

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



In the opinion of the BBA, Vandex BB 75, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Technical Standards as listed below.

Regulation:	10	Fitness of materials
Standard:	B2.1	Selection and use of materials, fittings, and components, and workmanship
Comment:		The product is acceptable. See the <i>Installation</i> part of this Certificate.
Standard:	B2.2	Selection and use of materials, fittings, and components, and workmanship
Comment:		The product is acceptable. See section 13 of this Certificate.
Regulation:	17	Resistance to moisture
Standard:	G2.6	Preparation of a site and resistance to moisture from the ground — Resistance to moisture from the ground
Comment:		The product satisfies this Standard. See section 13 of this Certificate.

## 3 The Building Regulations (Northern Ireland) 2000



In the opinion of the BBA, Vandex BB 75, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations as listed below.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is acceptable. See section 13 of this Certificate.
Regulation:	C4	Resistance to ground moisture and weather
Comment:		The product can satisfy the requirements of this Regulation. See section 13 of this Certificate.

## 4 Construction (Design and Management) Regulations 1994 (as amended) Construction (Design and Management) Regulations (Northern Ireland) 1995 (as amended)

Information in this Certificate may assist the client, planning supervisor, designer and contractors to address their obligations under these Regulations.

See section: *6 Delivery and site handling (6.1 and 6.2).*

### 5 Description

5.1 Vandex BB 75 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.

5.2 It is produced by a continuous batch blending process.

5.3 Quality control checks are carried out on the raw materials, and the finished product checks include:

- setting time
- bulk density
- grading
- loss on ignition
- flexural and compressive strengths
- appearance
- air content
- consistency of volume.

5.4 Vandex Plug is a cement-based, quick-setting hydraulic compound, used to staunch running water or seepage through concrete or masonry.

### 6 Delivery and site handling

6.1 Vandex BB 75 is packed in 25 kg PE lined paper bags. Each sack or container carries a label bearing the BBA identification mark incorporating the number of this Certificate.

6.2 Vandex BB 75 and Vandex Plug are cement-based products and must be stored in dry conditions, and handled using routine precautions for cement-based products.

## Design Data

### 7 General

7.1 Vandex BB 75, when used in one or two coats in the proportions defined in section 1.6, provides an effective barrier against the transmission of liquid water and can be applied without difficulty to brickwork, stonework, blockwork or concrete substrates by competent contractors.

7.2 The product is satisfactory for use:

- for interior and exterior waterproofing of concrete, brickwork, stone and blockwork structures,
- for waterproofing concrete floors, or
- as a waterproofing system, eg reservoirs, tanks, pools.

7.3 New buildings must be designed to withstand the hydrostatic pressure expected in service.

7.4 Continuity should be maintained with any membrane (new or existing) in the basement floor using a flexible waterproof joint.

### 8 Resistance to movement

The product is unable to accommodate movement due 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.

### 9 Fixings

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

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

9.2 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.

### 10 Sulphate resistance

10.1 Vandex BB 75 is based on Portland cement and may be used in soils or groundwater of Class DS1, as defined in BRE Special Digest 1 : 2001 *Concrete in aggressive ground*, Part 1 *Assessing aggressive chemical environment* (see Table 1).

Table 1 Concentrations of sulphates expressed as SO<sub>4</sub>

Class	In soil		In ground water
	Total SO <sub>4</sub> (%)	SO <sub>4</sub> in 2:1 water: soil extract (g per litre)	(g per litre)
DS1	<0.24	<1.2	<0.4

10.2 Where the brickwork has a high sulphate content, or is efflorescing, the advice of the Certificate holder should be sought.

10.3 The Certificate holder can provide an analytical service on samples of substrate, soil and groundwater.

### 11 Resistance to damage

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

11.2 Coatings of the product on walls can be protected by boarding, a sand/cement mix,

Vandex Refurbishment Plaster white or a proprietary cement-based renovating plaster.

## 12 Internal application on a basement wall

12.1 If the product is applied to the inside of a basement wall, the wall structure will remain cold and wet, with subsequent risks of condensation and frost damage.

12.2 The condensation risk can be minimised by the application of a coat 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.

## 13 Durability

 Under normal conditions of use, Vandex BB 75 will provide an effective barrier to the transmission of liquid water for the life of the building to which it is applied.

## Installation

### 14 General

14.1 When installing Vandex BB 75 workmanship should comply with BS 8000-4 : 1989.

14.2 The product may be applied under most normal site conditions, but external application should not be attempted during rain nor at temperatures below 5°C.

### 15 Surface preparation

15.1 Before application, 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 at least 10 mm.

15.2 Water infiltration through the surface to be treated is either diverted by drainage or concentrated at weep holes which will be plugged with Vandex Plug after the application of the final coat.

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

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

15.5 If the surface shows frost damage, the affected area is removed and replaced before the product is applied.

## 16 Application

16.1 A slurry is prepared by mechanically mixing 25 kg of Vandex BB 75 with 5 to 5.75 litres of potable water for brush and trowel applications, or 5.75 to 6.25 litres for spray application.

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

16.3 The product is applied to the substrate in one or two applications dependant on the type of application required to achieve the coating thickness and application rate given in Table 2.

Table 2 Coating thicknesses and application rate

Water seepage	Minimum <sup>(1)</sup> coating thickness (mm)	Application rate (kgm <sup>-2</sup> )
Ground moisture	1.5	3.0
Pressureless surface water and seepage	2.0	4.0
Water under pressure, water tanks, reservoirs and below ground structures	3.0	6.0

(1) Maximum thickness of the coating is 5 mm.

16.4 The first coat of the product is applied by vigorously working into and laying over the surface using a masonry brush, or by trowelling, or spraying at a maximum coverage rate of 4 kgm<sup>-2</sup>. Application should be carried out to ensure a flowing edge is maintained. If this is not possible, when application is continued the previously applied coat should be overlapped.

16.5 As soon as the first coat has hardened sufficiently (after approximately four to six hours), the second coat may then be applied by brush, spray or trowel at a maximum coverage rate of 4 kgm<sup>-2</sup>.

16.6 Each coat is examined for damage and areas of incomplete coverage before the next coat is applied.

16.7 Mixed Vandex BB 75 should be used within 30 minutes and discarded if re-stirring does not restore its workability.

16.8 Once the final coating has fully hardened, the weeps should be stopped using Vandex Plug. Any recesses are coated with Vandex BB 75, filled with an appropriate mortar and coated with the product to provide continuity of the surface coating.

16.9 A coat of proprietary cement-based plaster or sand/cement mix may be applied to protect it from damage during service.

16.10 Floors waterproofed with the product are protected by a screed finish.

## Technical Investigations

The following is a summary of the technical investigations carried out on Vandex BB 75.

### 17 Tests and investigations

17.1 An examination was made of independent test data to determine:

- bulk density
- sieve analysis
- halogen content
- setting time
- stability of mix
- water retention of mix
- resistance to water pressure
- flexural strength
- compressive strength
- water vapour permeability
- modulus of elasticity
- shrinkage and swelling
- adhesion.

17.2 An independent report on the manufacturing process was examined, including methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

17.3 A visit was made to a site in progress to assess the practicability of installation.

## Additional Information

The management systems of Vandex International Ltd and Vandex Isoliermittel GmbH have been assessed and registered as meeting the requirements of ISO 9001 : 2000 by SQS Swiss Association for Quality Management Systems (Registration No 11055-04).

## Bibliography

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

ISO 9001 : 2000 *Quality management systems — Requirements*

## Conditions of Certification

### 18 Conditions

18.1 This Certificate:

- (a) relates only to the product that is described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) is valid only within the UK;
- (d) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (e) is copyright of the BBA;
- (f) is subject to English law.

18.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, are references to such publication in the form in which it was current at the date of this Certificate.

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

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;

(b) continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine; and

(c) are reviewed by the BBA as and when it considers appropriate.

18.4 In granting this Certificate, the BBA is not responsible for:

- (a) the presence or absence of any patent or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the nature or standard of individual installations of the product or any maintenance thereto, including methods and workmanship.

18.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the installation and use of this product.



In the opinion of the British Board of Agrément, Vandex BB 75 is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 90/2516 is accordingly awarded to Vandex (UK) Ltd.

On behalf of the British Board of Agrément

Date of Third issue: 27th January 2004

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

Chief Executive

*\*Original Certificate issued 30th August 1990. This amended version includes reference to revised national Building Regulations and Standards, additional reference to CDM Regulations, and Additional Information section, additional application rate information and new Conditions of Certification.*



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For technical or additional information,  
contact the Certificate holder (see  
front page).  
For information about the Agrément  
Certificate, including validity and  
scope, tel: Hotline 01923 665400,  
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