

Elasticized waterproofing slurry

- resistant to water aggressive for concrete
- suitable for areas of potential cracking
- applicable by mortar gun

Permeability to CO ₂	s ₀ > 50 m	CE 0761 Vandex Isoliermittel-GmbH Industriestr. 19-23 DE-21493 Schwarzenbek 09 005/150 EN 1504-2:2004/ZA.1d,1e Surface protection coating
Water vapour permeability	class II 5 m ≤ s ₀ ≤ 50 m	
Capillary water absorption	w < 0.1 kg/m ² ·h ^{0.5}	
Crack bridging ability	A2 (20 °C)	
Adhesion strength	≥ 0.8 MPa	
Reaction to fire	class E	
Dangerous substances	complies with 5.3	

PRODUCT DESCRIPTION

VANDEX CEMELAST is a two component polymer modified, cementitious surface treatment. It consists of VANDEX BB 75 (dry component) and VANDEX CEMELAST LIQUID (polymer component).

AREAS OF APPLICATION

- substrates: concrete and masonry
- waterproofing and protection against water and moisture
- for cracks and areas of potential cracking
- foundations, slabs, retaining walls, drinking water structures, etc.

PROPERTIES

Owing to its composition of cement, quartz with well graded aggregate and selected additives, as well as the admixture of the polymer component, a waterproof and elastic coating is achieved. The initial and final bonding ability of VANDEX CEMELAST is excellent, making it suitable to be applied on horizontal as well as vertical surfaces. It is durable, resistant to frost and heat after setting and at the same time vapour permeable. It is an active barrier to carbon dioxide (CO₂) and resistant to water aggressive for concrete. VANDEX CEMELAST is tested for use in contact with drinking water.

SURFACE PREPARATION

The substrate to be treated must be sound and even, open-pored, roughened and its surface free from voids, large cracks or ridges. Any adhesion reducing substances like bitumen, oil, grease, remains of paint or laitance have to be removed by suitable means. – Water leaks must be stopped e.g. with VANDEX PLUG. – Thoroughly moisten the substrate, it must be damp but not wet at the time of application. Any surface water on horizontal surfaces must be removed.

Brick- and blockwork substrates

Any remaining plaster, render or other substances that could inhibit bonding must be removed back to the substrate. Gypsum, remains of wood or other foreign material must be removed by appropriate means. Loose pointing must be routed out and the substrate cleaned thoroughly.

MIXING

Before use, shake the container of the polymer component well. – Mix 25 kg of VANDEX BB 75 with 9 kg of VANDEX CEMELAST LIQUID in a clean container for at least 3 minutes to a lump-free, homogeneous consistency. Use a

high speed mechanical mixer. Where site conditions require, rinse the container with clean water and add it to the mixture.

APPLICATION

VANDEX CEMELAST is applied with trowel or suitable spray equipment.

Depending on the slurry consistency a maximum of 4 kg/m² can be applied in one working cycle. In most cases the application of more than one coat is recommended; please refer to relevant specification.

If several coats are applied the previous coat must not be damaged during application of the following coat. The waiting time before applying the following coat depends on local climatic conditions such as humidity, temperature, etc. The previous coat is textured by suitable means whilst still plastic to form a key.

Trowel application

First a scratch coat is applied for maximum adhesion to the substrate, working from the bottom up. Ensure that all cavities in the substrate are filled in order to exclude any trapped air.

Spray application

VANDEX CEMELAST can be applied with a suitable fine mortar spraying device. For maximum spray pattern it should be possible to adjust volume of product as well as air pressure and volume. The nozzle diameter is approx. 6 mm. The first layer of Vandex is applied in circular motion with the spray nozzle held at a 90° angle to the substrate. The material is then flattened and keyed. The final layer can be left as a spray finish or treated to a specified finish.

Do not apply at temperatures below +5 °C, or to a frozen substrate.

CONSUMPTION

Type of water impact	Recommended overall application rate	Number of layers
Pressureless water	2.5–3.5 kg/m ²	1–2
Water under pressure	3.5–5.5 kg/m ² depending on water pressure	2–3

Note:

Substrate and application conditions have to be observed. Depending on surface roughness, consumption may vary.

CURING

Provide suitable protection against extreme weather conditions (e.g. rain, sun, wind, frost) while setting. The freshly treated surfaces should be protected from rain for a minimum period of 24 h. The VANDEX CEMELAST coating must be fully cured before getting in contact with water. Avoid formation of water films or condensation on top of coating during 7 days after application. Provide a relative humidity of 60–80% and good air exchange in enclosed areas.

BACKFILLING

Backfilling can be carried out 3 days after completion of the Vandex treatment. If there is a risk that the layer of Vandex will be damaged during back-filling (sharp-edged material) it must be protected by suitable means.

COATING

Surfaces treated with Vandex products which are to be coated or painted should be left to cure for at least 28 days. Coatings on top of a Vandex treatment have to be alkali resistant. Decorative coatings applied on the passive water pressure side are recommended to be water vapour permeable. When applying paint on an elasticized polymer modified product, it must have equivalent elastic properties.

FILLING OF WATER RETAINING STRUCTURES

Filling can take place when the surface treatment has hardened sufficiently, using the following guide referring to days after application:

Temperature (°C):	Cure time (days):
5–10	14
10–15	10
15–25	7
25–30	5

It is provided that the surface is thoroughly checked for hardness before filling. A careful cleaning and disinfection prior to the first operation is essential. Observe national laws and regulations.

PACKAGING

VANDEX BB 75: 25 kg PE-lined paper bag
VANDEX CEMELAST LIQUID: 9 kg PE-container

STORAGE

VANDEX BB 75: When stored in a dry place in unopened, undamaged original packaging, shelf life is 12 months.
VANDEX CEMELAST LIQUID: Store in a frost-free place. Shelf life in unopened, undamaged original packaging is 8 months.

HEALTH AND SAFETY

Please refer to the actual Safety Data Sheets VANDEX BB 75 and VANDEX CEMELAST LIQUID on www.vandex.com.

TECHNICAL DATA			
		Dry component	Polymer component
Appearance		grey powder	milky white liquid
		Wet mix	Hardened
Colour		grey	grey VANDEX CEMELAST is not a decorative coating.
Density of wet mix	[kg/l]	approx. 1.65	
Workability at 20 °C	[min.]	approx. 30	
Setting time at 20 °C	[h]		approx. 3–6
Elongation at 20 °C	[%]		approx. 13
Tear resistance at 20 °C	[MPa]		approx. 0.9
Crack bridging capacity at +20 °C	[mm]		≤ 0.4
Further data			refer to CE marking
All data is averages of several tests under laboratory conditions. In practice, climatic variations such as temperature, humidity, and porosity of substrate may affect these values.			

The information contained herein is based on our long-term experience and the best of our knowledge. We can, however, make no guarantee since for a successful outcome, all circumstances in an individual case must be taken into consideration. Indications of quantities required are only averages which in certain cases might be greater.



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