

### ***Elasticized waterproofing slurry***

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

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#### **PRODUCT DESCRIPTION**

Vandex Cemelast is a two-component polymer modified, cementitious surface treatment. It consists of Vandex BB75 (dry component) and Vandex Cemelast Liquid (polymer component).

#### **AREAS OF APPLICATION**

- substrate: 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 (CO<sub>2</sub>) 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 25kg of Vandex BB75 with 9kg of Vandex Cemelast Liquid in a clean container for at least 3 minutes to a lump-free, homogenous 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 4kg/m<sup>2</sup> 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. 6mm. 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.

#### **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 hours. 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 to 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 backfilling (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 to 10	14
10 to 15	10
15 to 25	7
25 to 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.

## CONSUMPTION

TYPE OF WATER IMPACT	RECOMMENDED OVERALL APPLICATION RATE	NUMBER OF LAYERS
Pressureless water	2.5 to 3.5kg/m <sup>2</sup>	1 to 2
Water under pressure	3.5 to 5.5kg/m <sup>2</sup> , depending on water pressure	2 to 3

### Note:

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

## YIELD

Approximate yield of a full kit, once mixed, is 17.5 litres.

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 to 6
Elongation at 20°C (%)		Approx. 13
Tear resistance at 20°C (MPa)		Approx. 0.9
Crack bridging capacity at +20°C (mm)		≤ 0.04

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.

## PACKAGING

Vandex BB 75 25kg lined paper bag  
 Vandex Cemelast Liquid 9kg 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

Vandex Super contains cement. Irritating to respiratory system and skin. Risk of serious damage to eyes. Keep out of reach of children. Do not breathe dust. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye / face protection. If swallowed, seek medical advice immediately and show this container or label. Provide good ventilation if handling bigger quantities or in enclosed areas. For more information, please refer to the actual Safety Data Sheet for Vandex BB75 and Vandex Cemelast Liquid.