

## Application Guidelines

### Related Product Information

- Data Sheet & Material Safety Data Sheet:  
VANDEX UNI MORTAR 1

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## 1. Preparation of Substrate

### 1.1 Concrete substrate

Concrete to receive VANDEX UNI MORTAR 1 treatment must have a clean and well keyed surface to ensure maximum bonding. Surfaces to be waterproofed should be examined for structural defects, and unacceptable conditions reported and remedied.

Remove all cement laitance, shutter release agent, curing compound, loose particles, etc. by means of light, wet or dry sandblasting, high pressure water jetting or wire brushing.

Water leaks must be stopped in accordance with the VANDEX PLUG Application Guidelines.

Remove all protrusions and cut back to sound concrete, chasing out any honeycombed or damaged areas.

Construction joints and shrinkage cracks exceeding 0.3 mm should be routed out to a minimum depth of 20 mm. Shutter tie holes should be roughened.

Clean all chased out areas, shutter-tie holes, etc. and pre-water until the concrete is saturated. Following this, fill the areas with VANDEX UNI MORTAR 1 in layers; the number depending on the total layer thickness.

### 1.2 Brickwork substrate

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

## 2. Pre-watering

Prior to applying VANDEX UNI MORTAR 1, carefully rinse all the surfaces to be waterproofed and pre-water with clean water.

Pre-water several times so that the concrete is thoroughly saturated. When VANDEX UNI MORTAR 1 is applied, the surface should be damp but not wet. Any surface water on horizontal surfaces must be removed.

## 3. Mixing

Place 25 kg of VANDEX UNI MORTAR 1 in a clean container, add 3.0 - 4.0 litres of water and stir for at least 3 minutes with a mechanical mixer.

## 4. Climatic Conditions

Do not apply VANDEX UNI MORTAR 1 at temperatures below +5 °C (40 °F) or to frozen substrate.

## 5. Layer Thickness

Minimum layer thickness per layer: 5.0 mm

Maximum layer thickness per layer: 12.0 mm

For small areas such as coves, fillets (approx. 30 x 30 mm), local repairs and shutter tie holes VANDEX UNI MORTAR 1 may be applied in layer thicknesses exceeding the above value.

## 6. Application Methods

### 6.1 Trowel application

For small areas VANDEX UNI MORTAR 1 may be applied with a steel trowel. A scrape coat of VANDEX UNI MORTAR 1 is applied for maximum adhesion to the substrate, working from the bottom up. All cavities and air holes must be filled in this first step of the work, thereby excluding trapped air. The first layer is then applied to the specified thickness.

### 6.3 Spray application

VANDEX UNI MORTAR 1 can be applied with a suitable fine mortar spraying device. The equipment required and the air used must be adjustable so that the optimum spray pattern can be achieved.

The nozzle diameter is approx. 10 mm, but depends on the spray gun used.

The compressor performance must be at least 5 bar pressure, delivering 500 l/min.

The first layer of VANDEX UNI MORTAR 1 is applied using a circular motion with the spray nozzle held at a 90° angle to the substrate. The distance between the spray nozzle and the surface will depend on the spray gun/compressed air used.

The material is then flattened with a suitable trowel. This operation levels the surface and increases adhesion to the substrate.

VANDEX UNI MORTAR 1 can be applied in several layers. If multiple layers are applied we recommend that subsequent layers be applied whilst the first layer is still damp on the surface. The waiting time before applying the next layer is approx. 2 - 4 hours, but depends on local climatic conditions such as humidity, temperature, etc. The previous layer must not be damaged during application of the next layer.

In addition, when following coats are to be applied, it is recommended that the previous layer be roughened slightly whilst still damp on the surface. This ensures maximum adhesion between the layers. After the mortar has been drawn off the surface can be smoothed with a steel trowel or abraded with a felt, sponge or wooden flat.

## 7. Consumption

2 kg/m<sup>2</sup> VANDEX UNI MORTAR 1 are required per millimetre of layer thickness. E.g. layer thickness of 10 mm corresponds to a consumption of 20 kg/m<sup>2</sup>.

Please refer to the relevant Vandex product specifications for more detailed information.

## 8. Curing and Protection

VANDEX UNI MORTAR 1 is cement-based and will cure and harden in the same way as ordinary concrete. Setting and hardening will depend on the surrounding temperature and humidity.

For maximum effectiveness from your VANDEX UNI MORTAR 1 treatment, it is essential that the layers are kept damp for at least 5 days and protected against evaporation by sun and wind.

Careful postwatering should be carried out at intervals, starting the day following the application. Alternatively, the surfaces can be covered with plastic sheeting, wet mats or moist sand.

The use of curing compounds is not recommended.

The freshly treated surfaces should be protected from rain for a minimum period of 24 h. Surfaces treated with VANDEX UNI MORTAR 1 should be protected from frost for at least 5 days. If necessary, cover with insulation mats.

## 9. Decoration, Coating and Tiling

All surfaces treated with VANDEX UNI MORTAR 1, which are to be coated or painted, must be left to cure for at least 4 weeks.

## 10. Backfilling

Backfilling can be carried out 3 days after completion of the VANDEX UNI MORTAR 1 treatment. If there is a risk that the layer of VANDEX UNI MORTAR 1 will be damaged during back-filling (sharp-edged material) then it must be protected by suitable means.

## 11. Filling of Water Retaining Structures

In accordance with standard water industry practice, particular note needs to be taken of the following points:

- Clean all surfaces (ceiling, walls, slab, columns, stairs, etc.) with drinking water (do not use high pressure)
- Remove all cleaning water
- Disinfect all internal surfaces with approved disinfectants
- Remove all disinfectant

Filling can take place when the surface treatment has hardened sufficiently, usually not less than 14 days after application. However, if earlier filling is specifically required, filling may be considered after at least 7 days, provided the surface is thoroughly checked for hardness.

## 10. Health and Safety

VANDEX UNI MORTAR 1 contains cement. Irritating to eyes and skin. May cause sensitization by skin contact. Keep out of reach of children. 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.

For further information please refer to Material Safety Data Sheet.

The information contained herein is based on our longterm 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.