

# Application Guidelines

## Related Product Information

- Data Sheet & Material Safety Data Sheet:  
VANDEX SUPER / SUPER WHITE

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## 1. Preparation of Substrate

Concrete to receive VANDEX SUPER treatment must have a clean surface and open capillary system to ensure chemical penetration and 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.

## 2. Pre-watering

Prior to applying VANDEX SUPER, 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 SUPER is applied, the surface should be damp but not wet. Any surface water on horizontal surfaces must be removed.

## 3. Mixing

VANDEX SUPER is mechanically mixed with clean water to a consistency of thick oil paint. Separate containers should be used for measuring the VANDEX SUPER powder and water. Approximate mixing ratio is 0.8 parts of water to 2.0 parts of powder (by volume).

Mix only as much material as can be used within 20 minutes and stir the mixture frequently. If the mixture starts to set do not add more water, simply re-stir to restore workability.

## 4. Climatic Conditions

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

## 5. Application Methods

### 5.1 Dry-sprinkle application on blinding concrete

#### 5.1.1 Blinding concrete

The blinding concrete is poured and screeded as usual. The layer thickness should be a minimum of 10 cm.

## 5.12 Timing of the VANDEX SUPER dry-sprinkle application

The Vandex is applied just before pouring the concrete.

## 5.13 VANDEX SUPER Application

VANDEX SUPER is sprinkled dry over the surface with a sieve, such as a flour type with a mesh of 1 mm. The Vandex powder can be poured into the sieve from a plastic bucket held under one arm.

## 5.14 Concrete casting

The concrete is poured and vibrated as usual.

## 5.2 Dry-sprinkle and power-trowel or wood float application on horizontal areas

### 5.21 Concrete casting

The concrete is poured, vibrated, and screeded as usual.

### 5.22 Timing of the VANDEX SUPER application

The Vandex is applied when the concrete has reached its initial set, which is normally when the concrete will carry the weight of a man without leaving footprints deeper than 2 mm. It is essential that excess water collecting in puddles on the concrete surface is removed prior to application of the Vandex.

### 5.23 VANDEX SUPER dry-sprinkle application

VANDEX SUPER is then sprinkled dry over with a sieve, such as a flour type with a mesh size of 1 mm. The Vandex powder can be poured into the sieve from a plastic bucket held under one arm. Alternatively the Vandex powder may be sprinkled by mechanical means, such as a garden type fertiliser spreader.

### 5.24 Power trowelling and finishing operation

As soon as the dry sprinkling has taken place the finishing operation can begin and the slab can be trowelled to the specified finish. It is essential that the Vandex powder is worked into the surface either by power trowel or by hand trowel. If a non-skid surface is required one pass of the power trowel will be enough. If a steel trowelled surface is required two or three passes will usually be required.

## 5.3 Brush application

Apply the specified amount of VANDEX SUPER as a slurry, in one or two coats according to specification, using a masonry brush. Spread the material evenly and work it well into the surface. If more than one coat is required, apply the second coat whilst the first is still „green“.

## 5.4 Spray application

VANDEX SUPER may be applied using appropriate compressed-air spray equipment (e.g. hoppergun).

The size of the nozzle is approx. 4 mm.

The required air pressure is approx. 5 bar and the delivery of air 500 l/min.

Spray on two coats, according to the specification, in circular movements. Apply the second coat whilst the first is still „green“.

## 6. Consumption

Structural element and relevant application method:	Type of impact:	Approx. minimum quantity to be applied:
<b>Basement slab:</b> Dry sprinkled on blinding concrete	Positive water pressure	1.2 kg/m <sup>2</sup> applied in one coat
<b>Basement slab:</b> Dry sprinkled and power trowelled	Negative water pressure	1.2 kg/m <sup>2</sup> applied in one coat
<b>Basement slab:</b> Brush or spray applied	Positive water pressure	1.2 kg/m <sup>2</sup> applied in one coat
<b>Basement slab:</b> Brush or spray applied	Moisture-no water pressure	0.8 kg/m <sup>2</sup> applied in one coat
<b>Walls:</b> Brush or spray applied	Positive or negative water pressure	1.5 kg/m <sup>2</sup> applied in two coats
<b>Slab:</b> Brush or spray applied	Positive or negative water pressure	1.2 kg/m <sup>2</sup> applied in one coat

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

## 7. Curing and Protection

VANDEX SUPER 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 SUPER 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 SUPER should be protected from frost for at least 5 days. If necessary, cover with insulation mats.

In closed spaces and deep pits, air circulation should be provided for 24 hours following the VANDEX SUPER treatment.

## 8. Decoration, Coating and Tiling

All surfaces treated with VANDEX SUPER, which are to be coated or painted, must be left to cure for at least 4 weeks. At the end of the curing period, the surfaces should be saturated with water and neutralised with a 1:8 solution of hydrochloric acid. Following this, the area must be thoroughly rinsed with water.

**Precautions:** When spraying with hydrochloric (muriatic) acid solution, use protective rubber clothing and goggles. When a plaster or render finish is required on top of the VANDEX SUPER treatment, it is essential to apply a thin rough cast of sand and cement on the final VANDEX SUPER layer when it has reached initial set.

If this is not practical, carefully clean the hardened VANDEX SUPER surface and apply an appropriate bonding agent prior to rendering.

## 9. Backfilling

Backfilling can be carried out 3 days after completion of the VANDEX SUPER treatment.

## 10. 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 not less than 7 days, provided the surface is thoroughly checked for hardness.

## 11. Additional Information

VANDEX SUPER treatments are not decorative finishes. Discoloration of the treated surface may occur because of the chemical reactions between VANDEX SUPER and the concrete and/or contact with water. Such discoloration in no way detracts from the waterproofing effect.

## 12. Health and Safety

VANDEX SUPER / SUPER WHITE contains cement. Irritating to eyes and skin. VANDEX SUPER (grey) 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.



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