

Purely Mineral Sprayable Repair Mortar

- impermeable against hydrostatic water pressure
- free of industrial recycling materials
- compliant to German potable water requirements DVGW W300-5 (P):10-2014, type 1
- exposure class X_{TWB} according to DVGW W300-4 (A):10-2014
- approved resistivity against calcite dissolving waters

Compressive strength	class R2 ≥ 15 MPa	CE
Chloride ion content	≤ 0.05 %	
Adhesive bond	≥ 2.0 MPa	Vandex Isoliermittel-GmbH
Modulus of elasticity	≥ 20 GPa	Industriestr. 21
Thermal compatibility		DE-21493 Schwarzenbek
Part 1: Freeze thaw with de-icing		20
salt immersion	≥ 2.0 MPa	633
Reaction to fire	class A1	EN 1504-3:2005/ZA.1a
Dangerous substances	complies with 5.4	CC repair mortar for non structural repair (based on hydraulic cement)

MATERIAL

VANDEX CEMLINE NATURE is a water impermeable, cementitious, ready-mixed fiber reinforced spray mortar. Through the selective selection of natural-like ingredients has the common use of industrial recycled raw materials (fly-ash, slag etc) been avoided.

AREAS OF APPLICATION

- reprofiling and coating of concrete surfaces
- reprofiling of local concrete defects
- horizontal, vertical and overhead application
- for substrates with comparable low inherent strength
- suitable for reprofiling as well as coating mortar

PROPERTIES

VANDEX CEMLINE NATURE has got a comparatively low shrinkage behavior. The mortar is resistant against frost/de-icing exposures and water impermeable when applied in a layer thickness of minimum 8 mm.

Due to the balanced particle size distribution down to the level of cementitious binder the usage of common industrial recycling raw materials could be avoided. By selective crystalline reactive ingredients have optimized application features for manual as well as spray application been achieved.

VANDEX CEMLINE NATURE fulfills the requirements of German DVGW W300-5 (P):10-2014, Type I (free of organic ingredients).

SURFACE PREPARATION

The substrate to be treated shall be sound and even, open pored, roughened and its surface shall be free from voids, large cracks or ridges. Any adhesion reducing substances like bitumen, oil, grease, remains of paint or laitance shall be removed by suitable technologies.

Water leaks shall be stopped e.g. with VANDEX PLUG.

Thoroughly moisten the substrate. It shall be damp but not wet at the time of application. Any surface water on horizontal surfaces shall be removed.

MIXING

Mix 25 kg of VANDEX CEMLINE NATURE with 3.75-4.25 liters of tap water in a clean container for at least 3 minutes to a lump-free, homogeneous consistency. Use a mechanical mixer.

APPLICATION

Manual application

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

Immediately after the scratch coat VANDEX CEMLINE NATURE can be applied in layer thicknesses of 8 - 30 mm (16-60 kg/m²) in one working step. A total layer thickness of no-less than 8 mm shall be applied.

For small areas such as coves or local repairs VANDEX CEMLINE NATURE can be applied in layer thicknesses up to 60 mm.

Spray application

VANDEX CEMLINE NATURE can be applied with a suitable fine mortar spraying machine. For an optimized surface and minimum rebound it should be possible to adjust volume of applied fresh mortar as well as pressure and volume of air.

The recommended nozzle diameter is approx. 10-12 mm.

The first layer is applied by moving the spray nozzle circular and in an angle of 90° to the substrate. Then the applied layer is leveled. After 2-3 hours the applied layer can be smoothed e.g. by a sponge board and troweled.

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

For multi layer applications it is recommended to apply the subsequent layer when the previous layer is still damp at the surface. The previous layer shall not be damaged by application of the following layer. The waiting time before applying the following layer depends on local climatic conditions such as humidity, temperature, etc.

For optimal adhesion between the layers the previous layer shall be textured by suitable means whilst still plastic.

To maintain workability of the material do not add water, simply re-stir the mixture.

CONSUMPTION

Approx. 2.1 kg/m² VANDEX CEMLINE NATURE is required for a layer thickness of 1 mm.

CURING

Fresh applied coatings shall be kept damp to avoid too fast drying for at least 5 days. Protect from extreme weather conditions (e.g. sun, rain, wind, frost, condensation). The freshly treated surfaces shall be protected from rain for a minimum period of 24 h.

PACKAGING

25 kg PE-lined paper bag

STORAGE

When stored in a dry place in unopened, undamaged original packaging, shelf life is 12 months.

HEALTH AND SAFETY

Please refer to Safety Data Sheet on www.vandex.com.

TECHNICAL DATA		
Appearance		grey powder
Aggregate size d_{max}	[mm]	2
Density of wet mix	[kg/l]	approx. 2.1
Workability at 20 °C	[min.]	approx. 45
Setting time at 20 °C	[h]	approx. 2-4
Compressive strength	[MPa]	1 d: ≥ 10 7 d: ≥ 40 28 d: > 50
Flexural strength 28 d	[MPa]	≥ 8
Bond strength 28 d	[MPa]	$\geq 2,0$
Water impermeability 28 d; 1,5 bar (depth of water penetration)	[mm]	approx. 3
Modulus of elasticity 28 d	[GPa]	≥ 30
Total porosity	[vol. %]	$P_{28d} : \leq 12$ $P_{90d} : \leq 10$
Further data		please cf. CE declaration of performance
All data is averaged from 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.



RPM / Belgium N.V.
H.Dunantstraat 11B · B-8700 Tielt · T.:+32 (0) 51 40 38 01
Alteco Technik GmbH
Raiffeisenstraße 16 · D-27239 Twistringen · T.:+49 (0) 42 43 92 95 0

Vandex AG/ Vandex International Ltd
Rötistrasse 6 · CH-4500 Solothurn · T.:+41 (0) 32 626 36 46 / 36
Vandex Isoliermittel-Gesellschaft m.b.H.
Industriestraße 21 · D-21493 Schwarzenbek · T.:+49 (0) 41 51 89 15 0