

Polymer Modified Cementitious Protective Coating for Sewage Treatment Facilities

- suitable for use in H₂S corrosion environment
- resistant against aqueous sulfate solutions and liquid manure
- for internal and external waterproofing
- highly resistant to mechanical and abrasive wear

Material

VANDEX POLYCEM Z is a two component polymer modified, cementitious surface treatment. It consists of VANDEX POLYCEM (powder component) and VANDEX POLYCEMLIQUID.

Area of Application

VANDEX POLYCEM Z is applied to surfaces such as concrete, masonry and render which require resistance to sewage related chemical attack.

Properties

Owing to its composition of cement, specially graded quartz sand, active chemical ingredients and polymer additive, a chemical and abrasive waterproofing layer is achieved. VANDEX POLYCEM Z has been proven to withstand water pressure of 1.5 bar upon full curing of the product.

VANDEX POLYCEM Z has excellent adhesion properties allowing the material to be applied onto horizontal and vertical surfaces. It exhibits long term durability against freeze/thaw cycles and de-icing salts. The material is also resistant against aggressive sewage.

VANDEX POLYCEM Z is not a decorative material.

Surface Preparation

The substrate must be sound and relatively even (free from honeycombs, open cracks or ridges). The cement laitance must be removed to leave a fine gripping texture at the surface. All surface contaminants must also be removed e.g. bitumen, oil, grease, paint, dirt and traces of form oil. Pre-water the substrate so that it is damp but not wet at the time of application.

Mixing

Shake the VANDEX POLYCEM LIQUID component before use.

Mix 25 kg of VANDEX POLYCEM with 5 kg VANDEX POLYCEM LIQUID in a clean container for at least 3 minutes to a lump free consistency. Allow to stand for 3 minutes and then re-mix the product.

Application

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

VANDEX POLYCEM Z is applied with trowel or spray equipment in a minimum of two coats, a maximum 4kg/m² can be applied in one working cycle. Allow approximately 2 - 4 hours between coats, subsequent coats should not damage the previously applied material.

Provide suitable protection against extreme weather conditions. The VANDEX POLYCEM Z coating must be fully cured before coming into contact with water.

Consumption 2 kg/m² VANDEX POLYCEM Z is required to produce a layer thickness of 2 mm.

Recommended layer thickness : 3 - 5 mm

Packaging VANDEX POLYCEM (dry component): 25 kg PE - lined paper bag
VANDEX POLYCEM LIQUID: 5 kg PE - container

Storage Dry component: When stored in a dry environment in unopened, undamaged original packaging the shelf life is 12 months.
Liquid component: Protected from frost in unopened, undamaged original packaging the shelf life is 6 months.

Technical Data

	VANDEX POLYCEM (dry component)	VANDEX POLYCEM LIQUID (polymer component)
Aggregate state	powder	milky liquid
Colour	grey	white
Bulk density	approx. 1.3 kg/l	
Density at 20 °C		approx. 1.0 kg/l
pH - Value		7 - 9
	VANDEX POLYCEM Z (wet mix)	VANDEX POLYCEM Z (hardened)
Colour	grey	grey
Density of wet mix	approx. 2.0 kg/l	
Setting time	approx. 2 - 4 hours	
Bending tensile strength (28 days)		approx. 15 N/mm ²
Compressive strength (28 days)		approx. 60 N/mm ²
Adhesive strength		approx. 3.0 N/mm ²
All data are averages of several tests under laboratory conditions. In practice, climatic variations such as temperature, humidity and porosity of substrate may affect these values.		

Health and Safety

VANDEX POLYCEM Z contains cement.
Irritating to eyes and skin. Keep out of reach of children. Avoid contact with skin and eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves. Provide good ventilation if inside.

For further information please refer to Material Safety Data Sheet of VANDEX POLYCEM and VANDEX POLYCEM LIQUID.

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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