Primer
400 POX

Product Description

EPI Primer 400 POX is a ready-to-use, nonylphenol-free, 2-component primer based on a solvent-free epoxy resin. EPI Primer 400 POX can be used as a primer and scratch coat application. The pre-filled primer can be applied to mineral substrates such as concrete, sable-cement and anhydrite. The material is also extremely suitable to be applied as a primer and/or scraping layer on tiles to level the joint pattern.

Product Features

- Good adhesion properties
- Excellent filling capacity
- Easy to apply
- Airtight sealing of substrate. Apply Primer i.c.w. Primer Aquapox-N when substrate is highly absorbing.

Application areas

Primer
EPI Primer 400 POX can be used as primer on mineral surfaces such as concrete and sable-cement screeds.

Scratch coat
EPI Primer 400 POX can be used as a scraping layer and can possibly be filled up to approx. 30% with clean, fine fire-dried quartz sand to achieve a higher filling capacity.

Theoretical coverage

Application as Primer / Scratch coat
EPI Primer 400 POX, consumption approx. 500 – 2000 gr/m2 per layer depending on the roughness and porosity of the substrate. For highly absorbent surfaces we recommend using EPI Primer Aquapox-N in combination with EPI Primer 400 POX.

Note: Depending on the subsequent coating system and the reworking interval, the surface can be broadcasted with fire-dried quartz sand with a grain size of Ø 0.1 – 0.5 mm or Ø 0.3 – 0.8 mm or sanded accordingly and the sanding dust to be removed.

Technical Information

Density	~ 1,54 gr/cm^3
Viscosity @ 50 rpm	~ 1120 mPa.s
Pull-off strength	≥ 1.5 N/mm^2
VOC content, EU-limit value cat. A/j	≤ 500 g/l
Giscode	RE 30
Solids	100 %
Mixing ratio	comp. A : B = 100 : 20
General application conditions	Material-, substrate- and ambient temperatures between 15°C and 25°C and minimal 3°C above dewpoint
Optimal installation conditions	Material-, substrate- and ambient temperatures between 18°C and 22°C
Relative humidity	Maximum 85% RH
Application time	20 – 25 minutes at 20°C
Touch dry	After approx. 10 hrs. at 20°C
Re-coat window	After app. 16 hrs., and within 24 hrs. add the next layer or application
Foot traffic	After app. 16 hrs. at 20°C and 65% RH.

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual floor system, including binder and filler, were used as test specimens. All sample preparation and testing are conducted in a laboratory environment, values obtained on field applied materials may vary.

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Packaging
EPI Primer 400 POX is available in the following packaging unit;
EPI Primer 400 POX, set 25 kg
- EPI Primer 400 POX, comp. A : 20.8 kg
- EPI Primer 400 POX, comp. B : 4.2 kg

Sustainability
EPI Primer 400 POX has been tested as part of a flooring system to meet the requirements of the Indoor Air Quality standards as specified below. When applying the criteria for EMICODE, classification in the EMICODE EC1 category would be possible.

Regulation or Protocol	Classification
AFSSET VOC (French A+)	PASS
Belgian VOC	PASS
AgBB/ABG	PASS
Italian CAM Edilizia	PASS
EU Ecolabel	PASS
Indoor Air Comfort Gold	PASS
RTS M1 (Finland)	PASS
CDPH	PASS
BREEAM International	Exemplary Level
LEEDv4.1	PASS
DGNB	PASS

LEED v4 – BREEAM - DGNB
LEED, BREEAM & DGNB are preeminent programs for the design, construction, maintenance and operations of high performance "Green Buildings". EPI Primer 400 POX-NF conform to the following criteria:

LEEDv4 : IEQc4.3 Low emitting materials
BREEAM : HEA 02 Indoor Air Quality
BREEAM : HEA 09 Indoor Air Quality
DGNB : ENV 1.2 Local Environmental Impact
- Indicator 23 – Quality level 4
- Indicator 24 – Quality level 4

Substrate Preparation
In General, the substrate must fulfil the relevant standards with special reference to flatness, gradients, thickness, load bearing capacity and water permeability. Substrates to be coated have to be firm, dry, clean and free of loose and brittle particles and substances that impact the adhesion such as oils, grease, paint or other contaminations. Concrete substrates must be dry and a require a minimum cohesion strength of 1,5 N/mm^2 and a minimum compressive strength of 25 N/mm^2 at time of installation. Existing joints in the concrete surface must be performed with a joint profile. The dimensions and details of these joints will need to be determined based on the function of the expected movements of the concrete floor. Depending on the substrate a mechanical preparation (milling and/or vacuum blasting) is recommended for a good adhesion.

Residual Moisture tolerance
Mineral substrates must always be provided with a vapor barrier and must not exceed 4 % decreasing residual moisture content measured by the Calcium Carbide method, which corresponds to maximum 75 % relative humidity according to ASTM F2170. If using the calcium chloride test, the maximum allowable vapor emissions is 4.0 lbs. as per ASTM F1869. For anhydrite substrates may contain a maximum of 0,5 % decreasing residual moisture content before the floor system can be applied.

Limit processing conditions
No rising moisture in accordance with ASTM (polyethylene foil). The temperature of the substrate and not cured material must be at least 3°C higher than the dew point to prevent the risk of condensation, white discoloration or sticking of the floor finishing layer. At temperatures <10°C, the exothermal reaction will greatly slow down and exposed to changed humidity % RH for a longer period, which can cause white discoloration and carbamate formation.

Work Safety Precautions
Before using the products, the user must read the associated, current Material Safety Data Sheets (MSDS). The MSDS provides information and instructions for the safe use, handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety related data.

Please refer to the Material Safety Data Sheets for detailed safety instructions for use of the use of personal protective equipment during the processing of the materials.

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The Safety Data Sheet EPI 400 POX applies to the components A and B. These sheets have been drawn up in accordance with the latest European legislation.

Processing of EPI Primer 400 POX

General:

- Before installation, always check all relevant documentation and check that all components are present in the required quantities.
- Large temperature differences should be avoided as this can adversely affect the end result.
- The area must be wind and watertight: avoid drafts and penetration of moisture, dust, water, etc.
- Preferably remove doors that have no free space. Protect walls, columns and walls from splashes.
- Retain the floating character of floating screeds.

Application EPI Primer 400 POX

- Always mix complete units!
- If the application time, project size and mixing equipment allows, double sets may be used.
- Step 1: Mix components A and B carefully with each for approx. 2 minutes to a uniform homogeneous material, with attention to mixing on the bottom and on the edges.
- Pour the mixed material in a clean bucket and mix again for approx. 1 minute.
- Step 2: Pour the material onto the floor immediately after mixing. The material is applied with a rubber squeegee or a flat trowel in a scraping manner or with a notched trowel.
- Use clean spike shoes or golf shoes if desired and necessary.
- The product is NOT self-levelling
- Never walk through broadcasted floors!

Note: Be aware of condensation or other moisture loads early on! Low temperatures and high humidity increase the risk of white discoloration or carbamate formation (sticky surface)

Transport and Storage conditions

Store all components in closed packaging, away from the ground. Temperature between +15°C and 25°C. Dry room, avoid direct sunlight. Protect liquid components against frost (also during transport).

Shelf Life

Component A : 12 months from production date.
Component B : 12 months from production date.

Cleaning of tools

Clean all tools and equipment immediately after use with scouring pads and warm, soapy water or mineral spirits. Cured material will require mechanical means of removal.

Waste

Attention! Too much residual material in the packaging can become hot due to an exothermic reaction and cause smoke nuisance. Therefore never leave more than 100 grams of mixed product in the packaging and place the packaging in a safe and well-ventilated place. If there is more residual material, add a generous amount of sand to inhibit the exothermic reaction.

CE-marking

The harmonized European standard EN-13813:2002 applies to this synthetic resin flooring material, please refer to the Declaration of Performance for more information.

VOC / directive 2004/42/EC

EU limit value for the product (category A/j - Type SB) in ready-to-use condition: max. 500 g/l (2010) This product contains <500 g/l VOC.

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