

2-Component Epoxy Moisture Barrier

UZIN PE 480

Epoxy resin primer as a moisture barrier on very damp substrates

Description:

UZIN PE 480 is a pure epoxy resin with very high quality, developed particularly for subfloors that must be quickly brought to a condition ready for covering installation. Special resin that, in contrast to many other EP resins, cures even on damp surfaces. For interior and exterior use.

As a blocking primer:

- ▶ on unheated cement screeds or concrete without limitation to a maximum residual moisture value

As a strengthening primer:

- ▶ on weak, porous or cracked substrates

As a bonding primer:

- ▶ grit-blinded or in connection with UZIN PE 280 prior to levelling work with UZIN cement- or calcium sulphate levelling compounds
- ▶ on ceramics, stone and terrazzo
- ▶ on existing surfaces on well-bonded residues of adhesives or levelling compounds (e.g. synthetic resin, neoprene, bitumen or dispersion adhesives)

As an epoxy mortar:

- ▶ in connection with the special filler UZIN XS



Product Benefits / Properties:

UZIN PE 480 impresses by a high barrier effect also on damp surfaces.

Composition: Polyamine-hardened epoxy resin.

- ▶ Waterfree
- ▶ Excellent covering and filling capacity
- ▶ Water- and frost-resistant
- ▶ Chemical-resistant
- ▶ Very rapid setting, even on wet surfaces
- ▶ Shortened waiting time with "new subfloors"
- ▶ Solvent-free

Technical Data:

Packaging:	metal combi-can
Packsizes:	5 kg, 10 kg
Shelf life:	min. 12 months
Colour wet/dry:	yellowish/brownish
Mixing ratio:	A : B = 100 : 65 parts by weight
Pot life:	30 – 45 minutes*
Consumption:	250 – 500 g/m ² per coat*
Working temperature:	min. 15 °C / 59 °F at floor level and +3 °C / 37.4 °F above dew point
Set to Foot traffic:	after 12 – 24 hours*
Final strength:	after 3 – 5 days*

* At 20 °C / 68 °F and 65 % relative humidity.



Substrate Preparation:

The substrate must be sound, load bearing, dry, free from cracks, clean and free from materials which would impair adhesion (e.g. dirt, oil, grease). The substrate must be tested in accordance with applicable standards and bulletins and any deficiencies must be reported.

Any weakly bonded or soft surface sections (e.g. separating agents, loose residues of adhesives, levelling compounds, coverings or paints) have to be removed by brushing, abrading, grinding or shot-blasting. Thoroughly vacuum to remove loose material and dust. Dense, smooth and metal surfaces should be degreased and abraded. On metal surfaces, pre-test for adhesion strength. Always allow the primers to dry completely.

Refer to the Product Data Sheets for other products used.

Application:

1. Before use, allow the combi-cans to come to room temperature. Punch several times through the plastic plug and the floor of the upper container (hardener B). Allow the hardener to drain completely into the lower container (resin A). Remove the empty upper container and thoroughly blend the components with the UZIN spiral mixer (A). Decant the mixed material into an oval bucket and mix briefly once again.
2. Immediately apply an even coat of the primer onto the substrate with the UZIN Nylon Fibre Roller (B). On smooth surfaces, it can be spread with a B2 notched trowel and then evenly rolled out using the fibre roller. Ensure a fully sealed coat. Allow for the limited working time.
3. When the first coat is dry to accept foot traffic, but within 24 – 36 hours, apply the second coat using cross-strokes. To visually differentiate between the coats, mix approx. 1% of UZIN Epoxy-Colourant into the second coat (C).
4. With subsequent levelling work, the last (wet) coat has to be sanded immediately with UZIN quartz sand 0,8 (approx 3 kg/m²) (D). After curing vacuum thoroughly.

5. in case of using UZIN PE 480 as a moisture barrier an UZIN PE 280 as a Primer the minimum quantity of UZIN PE 480 has to be 500 g/m² in one layer.
6. Clean tools immediately after use with UZIN VE 124. Hardened material can only be removed by mechanical means. When hardened, sweep off loose sand and vacuum.



Application Chart:

Consumption according to surface condition and resin temperature, application with the UZIN Nylon Fibre Roller:

Substrate	Consumption
Rough, shot-blasted or ground surfaces	300 – 500 g/m ² *
Lightly shot-blasted surfaces, application with B2 notched trowel	approx. 500 g/m ² *
Sanded surfaces, old adhesive residues	250 – 350 g/m ² *
Smooth, dense and non-absorbent surfaces	250 – 300 g/m ² *
Barrier-coat on a new, trowelled and smoothed cement screed	approx. 350 g/m ² / 1 st coat* approx. 250 g/m ² / 2 nd coat*

* At 20 °C / 68 °F and 65 % relative humidity and acclimatised containers.
At lower temperatures, material consumption is increased.

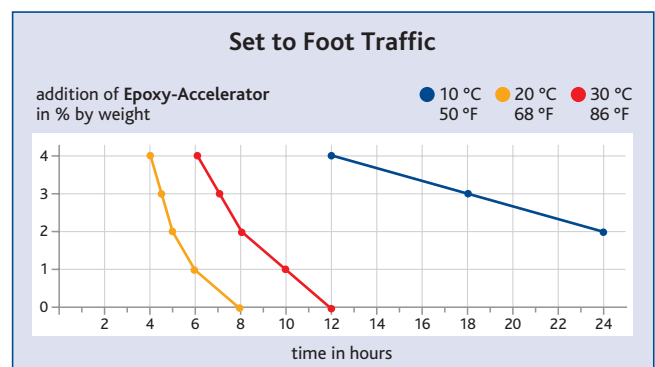
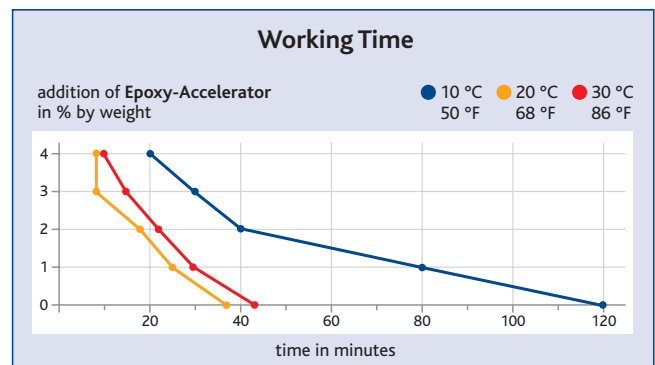
Extended application field:

- ▶ providing a barrier against high residual moisture in non-heated, cement-based substrates such as e.g. cement screeds, concrete slabs or bonded constructions in direct contact with ground moisture.
- ▶ surface strengthening or priming of dry, mineral surfaces, including or weak, even heated substrates. For cement-, calcium sulphate-, magnesia-, and stone-wood-screeds, concrete, chipboard P4 – P7, OSB 2 – OSB 4 boards and pre-finished screed sections.
- ▶ priming of ceramics and natural stone, reconstituted stone, terrazzo, metal (obtain technical advice), coatings and seal-coats (sanded until matt).
- ▶ priming of substrates with well bonded residues of bitumen-based or water-soluble adhesives, paints or levelling compounds (including spent sulphite adhesive residues).
- ▶ priming prior to application of epoxy-, PUR or silane-based adhesives.
- ▶ producing a reaction resin mortar, when mixed with UZIN XS, for filling holes and surface damage. Prime the surfaces and apply the mixed epoxy mortar wet-in-wet onto the primer.
- ▶ for the shut-off of dry mature and prove surfaces to protect from moisture. cement from thin-and medium-bed mortars at subsequent laying of large format tiles or laying in the middle bed process.

Practical Note:

To accelerate the setting process, up to max. 4 % of UZIN Epoxy-Accelerator can be added to the primer. Application of the following coat can then be carried out earlier than without the accelerator, ideally the same day.

In the following diagrams, the working time and setting time are shown depending on accelerator quantity and temperature.



An addition of 2 % allows two coats to be applied within one day.

Caution: at 4 % accelerator quantity, the working time is drastically reduced. Only use this quantity in conjunction with adequate experience and lower temperatures!

Important Notes:

- ▶ Shelf life minimum 12 months in original packaging when stored in relatively cool conditions. In cold conditions the material can thicken and be difficult to apply. Allow containers to come to room temperature before use.
- ▶ Optimum work conditions are 15 – 25 °C / 59 – 77 °F, floor- and container temperature above 15 °C / 59 °F and relative air humidity below 65 %. Low temperatures lengthen, whilst high temperatures shorten the working and curing time.
- ▶ **Caution:** Epoxy materials can become extremely hot in the container after mixing. Therefore apply the primer immediately, do not leave the container unattended after mixing and remove it to outdoors to allow residue to react.
- ▶ Concrete subfloors should be at least 3 days old.
- ▶ On highly absorbent or very porous surfaces allow for application of a second coat.
- ▶ When applying as a moisture barrier always apply two coats with approx. 350 – 500 g/m² in the first and 250 – 350 g/m² in the second coat. Does not replace damp-proofing in accordance with DIN 18 195, Part 4.
- ▶ Do not mix part quantities!
- ▶ The following standards, regulations and publications are applicable and especially recommended:
 - DIN 18 365 "Working with floor coverings"
 - DIN 18 356 "Working with wood flooring"
 - TKB publication "Assessment and preparation of substrates for floor covering and wood flooring work"
 - BEB publication "Assessment and preparation of subfloors"

Protection of the Workplace and the Environment:

Solvent-free. Non flammable. Comp. A: Irritant. Contains epoxy resin. Comp. B: Corrosive. Contains amine hardener. Both components: May cause irritations to eyes, skin or respiratory system. May cause sensitisation by skin contact. Use barrier cream, protective gloves and safety-goggles. Provide good ventilation. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In liquid form, "hazardous to the environment", therefore do not allow into drains, water courses or landfill. Observe safety information on product label as well as safety data sheet. Once cured, has neutral odour and presents no physiological or ecological risk.

Disposal:

Do not allow into drains, water courses or land-fill. Empty, scraped-out and drip-free metal containers are recyclable. Containers with unhardened residues and collected, unhardened product residues are Special Waste. Mixed and hardened product residues, as well as containers with mixed and hardened residues are Construction Waste.