

2-Component Epoxy Moisture Barrier

# UZIN PE 480

Epoxy resin primer as a moisture barrier on very damp substrates

**Description:**

2-component epoxy DPM and primer on absorbent and non-absorbent substrates with very high residual moisture prior to floor covering, wood flooring and tiling work. For interior and exterior use.

All-round suitability for / on:

- ▶ as a **barrier primer** on cement-based, moisture-resistant substrates, e.g. roughened, very compacted or smooth cement screeds, concrete, etc. without limitation to a maximum residual moisture value
- ▶ as a **case-hardening primer** on mineral, absorbent substrates, e.g. cement-, calcium sulphate-, magnesia- and stonewood- screeds, concrete, etc.
- ▶ thinned with UZIN VE 124, as an **impregnation treatment** with especially good penetration and strengthening effect on porous or soft mineral substrates (see "Application")
- ▶ as a **bonding agent** on abraded ceramics, stone and terrazzo surfaces, on existing floor finishes with well bonded residues of adhesives, smoothing compounds, paints or coatings, even on water-soluble adhesive residues, e.g. fixatives or sulphite adhesives, etc.
- ▶ as a **resin binder** mixed with Special Coarse Fillers UZIN XS (ratio 1 : 10 parts by weight) for producing a reaction resin mortar for subfloor repairs
- ▶ warm water underfloor heating and for exposure to castor wheels in accordance with DIN EN 12 529

UZIN PE 480 can be used as a moisture barrier for areas with very high moisture content above 99 % RH (2 coats)\*.

**Note:** Excessive moisture in moisture-sensitive subfloors, e.g. calcium sulphate- or magnesia- screeds, wood, etc. must not be barrier-coated.

UZIN PE 480 must be suitably primed, consult Uzin technical for correct methods.

\*See important notes.

**Consumption:**

Depending on surface absorbency and condition, consumption with roller application is: 250 – 500 g/m<sup>2</sup> per coat.



LEED contributing product

**Product Properties / Benefits:**

A pure, high-quality, 2-component epoxy resin produced by mixing Resin A with Hardener B. Medium viscosity, applied with the UZIN Nylon Fibre Roller and rapid setting. Especially developed for floor covering work and substrates where normal drying to permissible residual moisture levels is not possible, and where they must be quickly brought to a condition ready for covering installation. Special resin that, in contrast with many other EP resins, cures even on damp surfaces. Can be used as a 1 or 2 coat surface moisture membrane.

**Binder:** Polyamine-hardened epoxy resin.

- ▶ Water- and solvent-free
- ▶ 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
Packsize:	5 kg, 10 kg
Shelf life:	min. 12 months
Colour:	yellowish
Hazard features:	see "Protection of the Workplace and the Environment"
Mixing ratio:	A : B = 100 : 65 parts by weight
Working temperature:	min. 15 °C / 59 °F at floor level
Pot-life:	30 – 45 minutes*
Consumption:	250 – 500 g / m <sup>2</sup> per coat
Set to foot traffic / load bearing:	after 12 – 24 hours*
Final strength:	after 3 – 5 days*

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

## Subfloor Preparation:

The subfloor must be sound, surface dry (no pooling, remove standing water), free from cracks, clean and free from materials that would impair adhesion.

Test the subfloor in accordance with applicable standards and notices and report any deficiencies. Depending on subfloor condition, the upper surface must have a good key provided in all cases. Brush, abrade, grind or shot-blast to remove any weak or soft surface layers, e.g. soft screed edges, hard sinter, separating agents, loose residues of adhesives, smoothing compounds, coverings or coatings. Then thoroughly vacuum.

**Attention:** Limited working time must be observed.

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

## Application:

1. Before use, allow the combi-can to come to room temperature. Punch several times through the plastic plug and floor of the upper container (hardener B), e.g. with a long screwdriver. Allow all of the hardener to drain into lower container (resin A). Remove the empty upper container and blend thoroughly using suitable mixing equipment (e.g. UZIN Spiral Mixer or UZIN Basket Mixer). Decant the mixed material into an oval bucket and briefly mix again. When mixing, ensure that the material around the floor and walls of the container is included and is well mixed.
2. Immediately apply the material evenly onto the surface with the UZIN Nylon Fibre Roller. On surfaces that are not too rough, the material can be spread with trowel notch B2 and can then be evenly rolled out. Ensure a completely sealed coat. Observe the limited pot-life.
3. When used as a moisture barrier, a minimum of two coats is recommended. Apply the second coat as soon as the first will accept foot traffic, not later than 24 – 36 hours. To visually distinguish the second coat, add approx. 1 % of colour concentrate UZIN Epoxy-Colourant. For very thin consistency and increased penetration as a case-hardening primer, the first coat can be diluted with up to 10 % EP Thinners, UZIN VE 124. Then, there is no longer given the full moisture barrier.
4. For subsequent application of cement-based smoothing compounds or adhesive mortars, immediately broadcast, to form a dry excess, UZIN Fine Quartz Sand 0.8 (approx. 3 kg/m<sup>2</sup>) into the final coat whilst it is still wet (see "Important Notes"). After setting, brush and vacuum off any loose sand.
5. Clean tools immediately after use with UZIN VE 124. Hardened material can only be removed by mechanical means.
6. Setting times: Accepts foot traffic, and second coat can be applied, after 12 – 24 hours. 12 – 24 hours after gritting, the final coat can be brushed and vacuumed and further materials can be applied.
7. To accelerate the setting process and, therefore, allow faster continuation of work, the epoxy resin primer can have up to 0.4 kg of UZIN Epoxy Accelerator added (2 bottles). With a relatively short working time of approx. 10 minutes\*, a covering of the epoxy primer after approx. 5 – 6 hours\* can be assumed.

## Important Notes:

- ▶ Shelf-life minimum 12 months in original packaging when stored in relatively cool, dry conditions. In cold conditions, the material can thicken and be difficult to apply.
- ▶ Optimum working conditions are 15 – 25 °C/59 – 77 °F. Low temperatures make application more difficult, increase consumption and strongly influence setting. High temperatures shorten the pot-life and setting time. The material and floor temperatures must be min. 15 °C/59 °F.
- ▶ Concrete subfloors should be at least 3 days old.
- ▶ Before applying the primer, always ensure the surface has a good key and is clean so as to guarantee a strong mechanical bond.
- ▶ On highly absorbent or very porous surfaces, allow for application of a second coat.
- ▶ Can be used as a one-coat surface applied membrane up to 98 % RH. Once mixed, immediately apply against walls, edges and around fixtures with a brush and to main areas with a notched trowel then smooth out the notches with a mohair roller pre wetted in UZIN PE 480, avoiding pooling. During application, re-coat floor sections which absorb the resin quickly and/or produce air bubbles in the wet material. Leave to cure before proceeding. Please note it is important to ensure that all air bubbles and deficiently covered areas are addressed. Any air bubbles that are not removed may cause a breach in the DPM. In the event of a failure Uzin will test UZIN PE 480, if it is found to be free from manufacturing faults we will conclude any failure is due to application error or outside influence and will not be regarded as a claim against Uzin.
- ▶ Can be used to protect calcium sulphate screeds up to 95 % RH and drying when used in conjunction with UZIN PE 425. See the UZIN PE 425 product data sheet or contact UZIN technical for more information.
- ▶ UZIN PE 480 can also be used as a stand alone moisture vapour suppressant over a calcium sulphate screed that is below 85 % RH and drying. It is important to ensure that prior to the application of the UZIN PE 480; the surface of the calcium sulphate has been full ground to remove all materials that may be deleterious to the performance of the UZIN PE 480. This always entails grinding down to where the coarse aggregate of the calcium sulphate screed is fully exposed. This will allow the UZIN PE 480 to penetrate into the calcium sulphate developing a full "matrix" of sealed and supported material. UZIN PE 280 must be used as a primer before a suitable UZIN smoothing compound is used to prepare the surface. If there is any doubt or confusion, you must contact your UZIN technical representative for a site inspection or confirmation prior to the application of any UZIN materials.
- ▶ Suitable for heated concrete and sand cement screeds up to 90 % RH as well as calcium sulphate screeds when used in conjunction with PE 425. The surface temperature should not exceed 27 °C. The underfloor heating system should have been installed in accordance with the manufacturer's instruction manual and as per the British Standards. The underfloor heating system should be turned off for 48 hours prior to installation and 48 hours after the flooring installation. The underfloor heating system should then be gradually recommissioned to avoid thermal shock and temperature variation.
- ▶ Always apply two coats with approx. 350 – 500 g/m<sup>2</sup> in the first coat and 250 – 350 g/m<sup>2</sup> in the second coat. This is not a substitute for a structural damp-proof membrane in accordance with DIN 18 195, Part 4.
- ▶ Do not mix part quantities.
- ▶ Depending on type of installation, the following standards are applicable or especially recommended: DIN 18 365 "Working with floor coverings" / DIN 18 356 "Working with wood flooring" / DIN 18 352 "Working with large and small format tiles"

## 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.