

2-Component Epoxy DPM/ Primer

UZIN PE 481

1 coat epoxy DPM on very damp substrates or resin primer

MAIN APPLICATION FIELD:

2-component epoxy DPM and primer on absorbent and non-absorbent substrates with ground bearing and residual moisture prior to floor coverings, wood flooring and tiling work. Can be used as a damp proof membrane where a structural damp proof membrane is not present or is ineffective, or where the substrate may be at risk of ground bearing moisture. For interior and exterior use

SUITABLE ON / FOR:

- ▶ as a DPM on cementitious & gypsum based screeds, to a maximum rising and residual moisture value of 99.9% RH*
- ▶ as a DPM on moisture tolerant smoothing compounds
- ▶ as a resin binder mixed with a dry sand for producing a reaction resin mortar for subfloor repairs
- ▶ warm water underfloor heating systems
- ▶ for exposure to castor wheels in accordance with DIN EN 12 529
- ▶ UZIN PE 481 can be used as a moisture barrier for areas with very high moisture content up to 99.9% RH (1 coat)*. Note: Ground bearing moisture-sensitive subfloors, e.g. calcium sulphate- or magnesia- screeds, wood, etc. must not be barrier-coated.

*See important notes.

**PRODUCT BENEFITS/FEATURES:**

UZIN PE 481 is a cost-effective one-coat DPM. It provides a fast and effective solution for damp cementitious and calcium sulphate screeds up to 99.9% RH if the screed does not contain underfloor heating. Its advanced formulation ensures excellent adhesion and allows for easy application.

- ▶ One coat application
- ▶ Quick drying
- ▶ Easy to apply
- ▶ Excellent screed penetration
- ▶ L2 Contract can be applied directly without priming
- ▶ Solvent-free

TECHNICAL DATA:

Packaging	Combi can Plastic / Cardboard
Shelf life	12 Months
Application temperature	10°C - 25°C
Working time	45 - 60 Minutes
Curing time	5 - 6 Hours*
Ready for foot traffic	6 - 12 Hours*
Ready for covering	6 - 12 Hours*
Final strength	3 - 5 Days*
Chemical resistant	Good
Storage	+5°C - 30°C
Betriebstemperatur	-20°C - +80°C

EXTENDED APPLICATIONS:

- ▶ consolidating primer for weak, porous or cracked substrates
- ▶ bonding primer with full sand scatter 0.3 - 0.8 prior to installation with smoothing compounds
- ▶ Epoxy mortar when mixed with UZIN XS 3.2 special filler
- ▶ primer prior to bonding work with epoxy, PUR or silane based adhesives

SUBSTRATE 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, curing agents, 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 and pre-stir Part A (resin) for 30 seconds using a spiral mixing whisk fully submerged at all times to minimise air entrapment. Pour the entire contents of Part B (hardener) into Part A (resin). Ensure any excess hardener left in the cuvette should be scraped and poured into Part A (resin). Use a high sheer spiral mixing whisk attached to a mixer/drill and mix thoroughly at 300-500 RPM for at least 2 minutes, ensuring a uniform consistency. Scrape the sides and bottom of the mixing container periodically to ensure complete incorporation of both components. Continue mixing until the material is homogeneous, with no visible streaks or unmixed material present. (Please note that once combined, pour a small amount back into the upper container to back mix so the residue may harden before disposal).
2. Immediately apply the material evenly onto the surface with a Wolff B2 notched trowel and then evenly back roll with a pre wetted (with PE 481) Uzin Nylon Fibre roller to obliterate trowel serrations, ensuring a continual film is produced free from bare patches. Ensure a completely sealed coat free of any breaches and pin holes. (If not, a second coat may be necessary.) Observe the limited pot life.
3. When used as a moisture barrier, please ensure a complete, homogeneous barrier is formed with no pinholes or breaches. If there are pin holes or breaches in the coat, please apply a second coat using a UZIN nylon roller. 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, PE 481 no longer provides a moisture barrier.

4. To create a mechanical key, immediately broadcast UZIN Fine Quartz Sand 0.3 - 0.8 (approx. 3 kg/m²) into the first coat if it is to be used as a primer or second coat if to be used as a moisture barrier while 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. Curing times: It accepts foot traffic, and a second coat can be applied after 6 – 12 hours. 12 – 24 hours after gritting, the final coat can be brushed and vacuumed, and further materials can be applied.

APPLICATION CHART:

Foundation / Application	Consumption	Drying Time
Moisture resistant smoothing compound B2 notched trowel - back rolled	Approx. 350 - 400 g/ m ²	6 -12 Hours*
Sand and cement screed B2 notched trowel - back rolled	Approx. 400 - 450 g/ m ²	
Rough concrete B2 notched trowel - back rolled	Approx. 450 - 500 g/ m ²	
Moisture protected Calcium Sulphate B2 notched trowel - back rolled	Approx. 400 - 450 g/ m ²	

*At 20 °C and 65% relative humidity. Material consumption and drying time is increase at lower temperatures and depends on the roughness of the substrate

IMPORTANT NOTES:

- ▶ L2 can be applied directly with out priming within 24h hours. If 24 hours has elapsed then apply UZIN PE 280 gitted primer.
- ▶ minimum of 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 the application more difficult, negatively affecting the consumption and strongly influence the setting. High temperatures shorten the pot life and setting time. The material and floor temperatures must be minimal. 15 °C / 59 °F.
- ▶ Before applying PE 481, always ensure the surface has a good key and is clean to guarantee a strong mechanical bond.
- ▶ Allow for the application of a second coat on highly absorbent or very porous surfaces where pinholing or breaches may be prevalent.

- ▶ Can be used as a one-coat surface applied membrane up to 99.9 % RH. If applied with a Wolff B2 notched trowel, approx 450 – 500 g per m² and back rolled with a presoaked nylon roller. If the PE 481 has pinholes or is showing signs of being breached, then a second coat should be applied within 24 hours of the first. Once mixed, immediately apply it against walls, edges, and around fixtures with a brush, 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 essential 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 481; if it is 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 on unheated screeds and 90 % RH on heated screeds and drying when used in conjunction with UZIN PE 425. See the UZIN PE 425 product data sheet or contact the UZIN technical department for more information.
- ▶ UZIN PE 481 can also be used as a stand-alone moisture vapour suppressant over a calcium sulphate screed that is below 85 % RH and drying with a functioning structural damp-proof membrane in the construction. It is essential to ensure that before applying the UZIN PE 481, the surface of the calcium sulphate has been fully ground to remove all materials that may be deleterious to the performance or adhesion/bonding of the UZIN PE 481. This always entails grinding down to where the coarse aggregate of the calcium sulphate screed is fully exposed. This will allow the UZIN PE 481 to penetrate into the calcium sulphate, developing a complete "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 or alternatively sand blind for a mechanical key first coat as a primer or second coat if used as a moisture barrier. If there is any doubt or confusion, you must contact your UZIN technical representative for a site inspection or confirmation before applying any UZIN materials.
- ▶ Suitable for heated concrete and sand cement screeds up to 90 % RH and 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, tested and fully commissioned following the manufacturer's instruction manual and as per the British Standards. The underfloor heating system should be turned off for 48 hours before and remain off during installation. The underfloor heating system should be gradually recommissioned to avoid thermal shock and temperature variation 48 hours after the flooring installation has been completed.
- ▶ Can be used as a damp-proof membrane where a structural damp-proof membrane is not present, is ineffective, or where the substrate may be at risk of ground-bearing moisture, but not designed to be used as a tanking membrane or to control hydrostatic pressure.
- ▶ Depending on the type of installation, the following standards are applicable or especially recommended: BS8203, BS8201, BS8204 and BS5385

SEALS OF QUALITY & ECOLABELS:

- ▶ Solvent-free

COMPOSITION:

Polyamine-hardened epoxy resin.

PROTECTION OF THE WORKPLACE AND THE ENVIRONMENT:

Solvent-free. Non flammable. Comp. A: Contains epoxy resin/irritant. May damage fertility. Restricted to professional users. Comp. B: Contains amine hardener/corrosive. Both components: May cause irritations or burns to eyes, skin or respiratory system. May cause sensitisation by skin contact. 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. Use barrier cream, protective gloves and safety-goggles. 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.

DISPOSAL:

Where possible, collect product residues and re-use. Do not allow dispersal into drains, sewers or ground. Empty, scraped and drip-free containers are recyclable. Containers with liquid residue, as well as the liquid product, are classed as Special Waste. Dried product residues are classed as Construction Waste. Therefore collect waste material, mix both components and allow to harden, then dispose as Construction Waste.