Product Datasheet

2-Component Epoxy DPM/ Primer

UZIN PE 480

1 coat epoxy resin primer or DPM on very damp substrates

MAIN APPLICATION FIELD:

2-component epoxy DPM and primer on absorbent and non-absorbent substrates with very high rising and residual moisture prior to floor covering, wood flooring and tiling work. 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*r
- 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 480 can be used as a moisture barrier for areas with very high moisture content up to 99.9% RH (1 coat)*. Note: Ground baring 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 480 is a high-quality epoxy resin primer, that hardens, in contrast to many other epoxy resins, on wet substrates. Can be used as a 1 or 2 coat surface moisture membrane. For interior and exterior use.

- Water, chemical and frost-resistant
- Solvent-free
- Excellent covering and filling capacity
- Can be used on wet substrates

TECHNICAL DATA:

Packaging	metal combi can
Pack size	5 kg, 10 kg
Shelf life	min. 12 months
Mixing ratio	A : B = 100 : 65 parts by weight
Colour	Comp. A: blue Comp. B: yellow A/B mixed: green
Consumption	250 - 500 g/m² per coat*
Pot life	30 - 45 minutes*
Drying time	12 - 24 hours*
Minimum application temperature	15 °C/59 °F at floor level
Hazard characteristics	see "Protection of the Workplace and the Environment"
Final strength	after 3 - 5 days*

*At 20 °C and 65% relative humidity. See "Application Chart".

GEV-EMICODE EC 1 PLUS very low emission

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UZIN PE 480

EXTENDED APPLICATIONS:

- hardener primer for weak, porous or cracked substrates
- bonding primer prior to installation with levelling 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 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 (yellow hardener B)., e.g. with a long screwdriver. Allow all of the hardener to drain into lower container (blue 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. If mixed correctly, the material is green.
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 EpoxyColourant. 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/m2) 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.

PRACTICAL NOTE:

To accelerate the setting proces, up to max. 4% of UZIN Epoxy Accelerator can be added to the primer. The application of the following coat can therefore be carried out earlier, ideally at the same day.

The working and setting time when using the accelerator are shown in the following diagrams:

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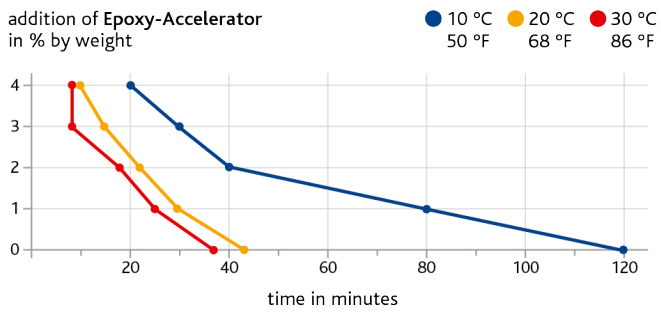
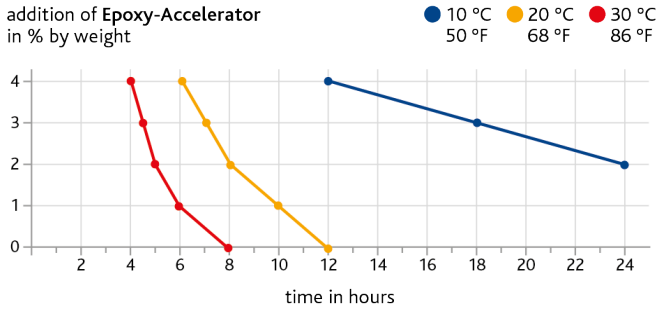
Working Time



Set to Foot Traffic



An addition of 2% allows a 2-coat application within one day.

Caution: The working time with 4% of the accelerator is dramatically reduced. Only use this quantity with adequate experience and lower temperatures!

APPLICATION CHART:

Foundation / Application	Consumption	Drying Time
Rough, shotblasted or milled substrates	300 - 500 g/m²	8 - 24 hours*
Slightly shotblasted substrates, application with B2 notched trowel	approx. 500 g/m²	
Sanded substrates, old adhesive residues	250 - 350 g/m²	
Smooth, dense, non absorbent substrates	200 - 300 g/m²	
Barrier on new, trowelled, smoothed cementitious screeds	1st coat: approx. 350 g/m² 2nd coat: approx. 250 g/m²	

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

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 99.9 % RH. If applied with a B2 notched trowel approx 450 – 500 g per m² and back rolled with a pre-soaked nylon roller. If the PE 480 has pin holed or showing signs of being breached then a second coat should be applied. Once mixed, immediately apply 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 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.

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- 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.
- 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.
- 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"

SEALS OF QUALITY & ECOLABELS:

- Solvent-free
- EMICODE EC 1 PLUS / Very low emission

COMPOSITION:

Polyamine-hardened epoxy resin.

PROTECTION OF THE WORKPLACE AND THE ENVIRONMENT:

Solvent-free. Non flammable. Comp. A: Contains epoxy resin/irritant. 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. Once cured, has neutral odour and presents no physiological or ecological risk.

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.