PRODUCT DATA SHEET

2-Component Epoxy Primer-Sealer

UZIN PE 460

Epoxy primer for damp or weak surfaces

Description:

UZIN PE 460 is an epoxy resin primer with low odor, mainly used as a moisture barrier up to 5 CM-% on cement screeds or concrete. For interior and exterior use.

As a blocking primer:

- on unheated cement screeds or concrete with residual moisture up to 5 CM-% / 100 % R.H.** (6 % per weight)
- on heated constructions up to 3 CM-% / 90 % R.H.**

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 dense or very absorbent substrates
- for exposure to castor wheels in accordance with DIN EN 12 529
- for heavy wear in domestic, commercial and industrial locations

As an epoxy mortar:

- in connection with the special filler UZIN XS 3.2

GEV-EMICODE EC 1 PLUS very low emission

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LEED contributing product

Product Benefits / Properties:

UZIN PE 460 impresses by fast curing and functionality also at low temperatures

Composition: Polyamine-hardened epoxy resin.

- Reduced odour during application
- High barrier effect against moisture
- Excellent surface wetting properties
- Water- and frost-resistant
- System component in PAH decontamination
- Solvent-free
- EMICODE EC 1 R PLUS / very low emission

Technical Data:

Packaging:	metal combi-can		
Packsizes:	5 kg, 10 kg		
Shelf life:	min. 12 months		
Colour wet / dry:	transparent / brownish		
Mixing ratio:	A : B = 1.9 : 1 parts by weight		
Pot life:	25 – 30 minutes*		
Consumption:	200 – 600 g / m² per coat*		
Working temperature:	min. 10 °C at floor level and + 3 °C above dew point		
Set to foot traffic:			
temperature:	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F
time:	21 hrs.	8 hrs.	5 hrs.
Final strength:	after 3 – 5 days*		

* At 20 °C / 68 °F and 65 % relative humidity.
** according to ASTM F 2170-17

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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 a 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 48 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 460 as a moisture barrier an UZIN PE 280 as a Primer the minimum quantity of UZIN PE 460 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 – 600 g/m²*
Lightly shot-blasted surfaces, application with B2 notched trowel	approx. 500 g/m²*
Sanded surfaces, old adhesive residues	250 – 350 g/m²*
Smooth, dense and non-absorbent surfaces	200 – 250 g/m²*
Barrier-coat on a new, trowelled and smoothed cement screed	approx. 350 g/m²/1st coat* approx. 250 g/m²/2nd coat*

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

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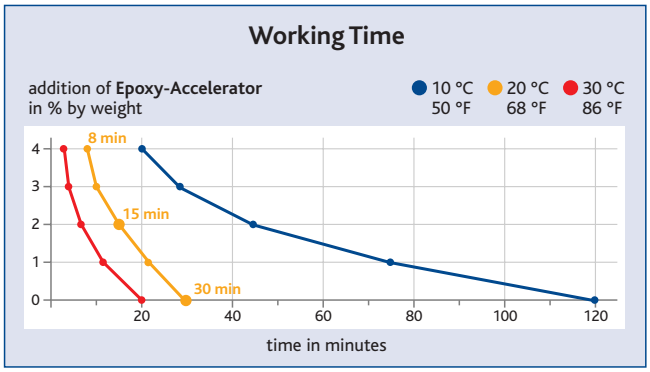
Extended application field:

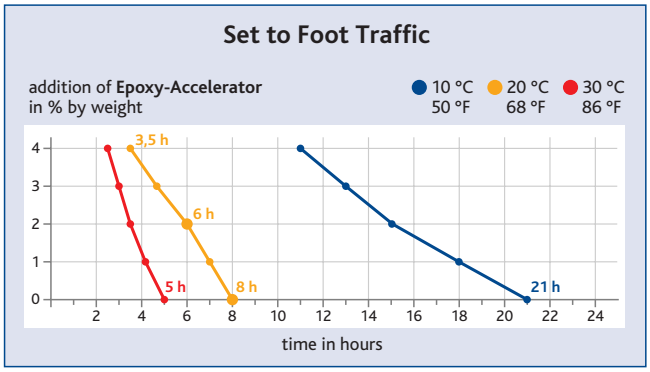
- providing a barrier against high residual moisture in non-heated, cement-based substrates such as e.g. cement screeds, concrete slabs or bonded constructions in direct contact with ground moisture up to 5 CM-% and 6 % by weight.
- surface strengthening or priming of dry, mineral surfaces, including 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 3.2, 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.

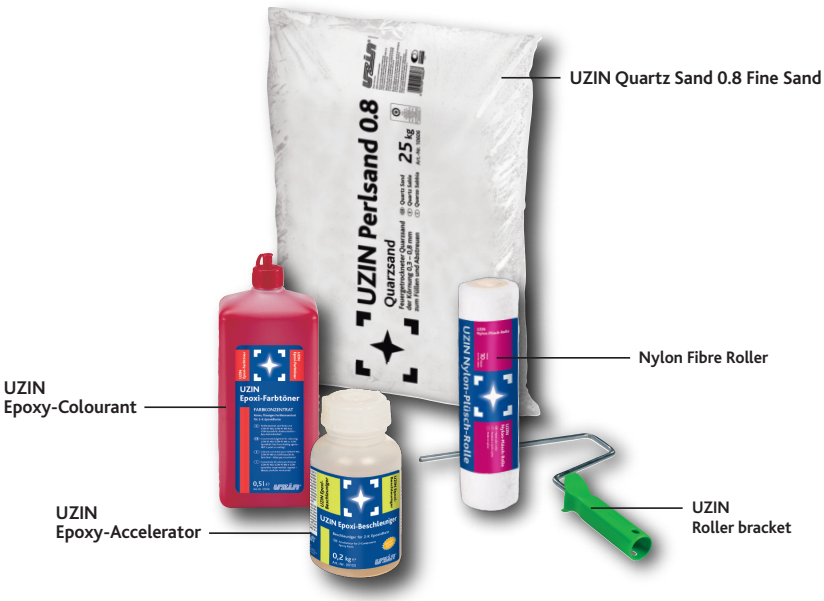
In the following diagrams, the working time and setting time are shown depending on accelerator quantity and temperature.





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. Allow containers to come to room temperature before use.
- Optimum work conditions are 15 – 25 °C, floor temperature above 15 °C / 59 °F and relative air humidity below 65 %. Low temperatures shorten, whilst high temperatures lengthen 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.
- As a damp-proofing barrier up to 5 CM-% under mineral levelling compounds, a double application is required. Does not replace damp-proofing in accordance with DIN 18 534.
- A surface barrier-coat cannot be applied on moisture-sensitive substrates or old cement screeds with levelling compound residues and in direct contact with ground moisture.
- For barrier-coats on cement screeds or concrete slabs with incorporated underfloor heating or concrete core cooling, obtain technical advice.
- For direct adhesion of wood flooring onto ungritted UZIN PE 460, UZIN reaction resin adhesives must be used within 48 hours.
- For use in PAH decontamination please refer to the detailed system recommendations and notes on the internet (ww.uzin.de).
- For coating on metal, prepare a test area and obtain technical advice.
- Do not mix part quantities!
- When mixed with e.g. UZIN Epoxy Accelerator and / or UZIN Epoxy Colourant there is no guarantee for the emission class EC 1 R PLUS anymore.
- 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: 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 a neutral odour and presents no physiological or ecological risk.

EMICODE EC 1 R PLUS – very low emission.

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.

The above information is based on our experience and careful investigations. The variety of associated materials and different construction and working conditions cannot be individually checked or influenced by us. The quality of your work depends, therefore, on your own professional judgement and product usage. If in doubt, conduct a small test or obtain technical advice. Observe the installation recommendations of the covering manufacturer. The publication of this Product Data Sheet invalidates all previous Product Information. The respective updated version of this datasheet can be found on our Homepage under www.uzin.com.