Product Datasheet

2-Component Epoxy Blocking Primer

UZIN PE 460

Epoxy primer for damp or weak substrates, with coloured components to indicate when mixed

MAIN APPLICATION FIELD:

- barrier primer on unheated cementitious screeds or on concrete up to 98 % R. H.** (5 CM-%)
- barrier primer on heated constructions up to 90 % R. H.** (3 CM-%)
- hardener for weak, porous or cracked substrates
- bonding primer prior to installation with UZIN levelling compounds

SUITABLE ON / FOR:

- dense or absorbent existing substrates
- cement or gypsum screeds, magnesia or xylolite screeds, concrete, P4 - P7 and OSB 2 - OSB 4 boards or precast screeds
- on existing or ungritted mastic asphalt
- ceramic or natural stone floors, terrazzo, metal (contact UZIN Technical Service for advise), matt-sanded coatings and sealants
- gritbinded or in connection with UZIN PE 280 prior to installation with UZIN cement or calcium sulphate levelling compounds
- exposure to castor wheels in accordance with DIN EN 12 529
- suitable for residential, commercial and industrial areas

PRODUCT BENEFITS/FEATURES:

UZIN PE 460 is an epoxy primer with low odour, mainly used as moisture barrier up to 98 % R. H.** (5 CM-%) on cements screeds or concrete. When using UZIN PE 460 as a mortar or levelling compound in combination with UZIN sands, it dries quickly and is highly resilient. For interior and exterior use.

- reduced odour during application
- high barrier effect against moisture
- very good surface penetration
- resistant against water, frost and chemicals
- Radon-proof

TECHNICAL DATA:

Packaging	metal combi can
Pack size	10 kg, 5 kg, 0.75 kg
Shelf life	min. 12 months
Mixing ratio	A:B = 100:50 parts per weight
Color	Comp. A: blue, Comp. B: yellow, A/B mixed: green
Consumption	200 - 600 g/m² per layer*
Working time	25 - 30 minutes*
Pot life	25 - 30 minutes*
Drying time	see application charts
Minimum application temperature	10 °C at ground level and +3 °C above dew point
Final strength	after 3 - 5 days*

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

**According to DIN EN 17668.

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EXTENDED APPLICATIONS:

- EP levelling compound when mixed with UZIN Perlsand 0.8 or quartz powder mix
- EP mortar when mixed with special filler UZIN XS 3.2, strength class SR-C35-F10 according to DIN EN 13 813
- primer prior to bonding work with epoxy-, PUR- or silane-based adhesives

SUBSTRATE PREPARATION:

The substrate must be sound, load-bearing, dry, free from cracks and free from materials (dirt, oil, grease) that would impair adhesion. Test the substrate in accordance with applicable standard or notices and report any deficiencies. Any adhesion-reducing or unstable layers, e.g. release agents, loose adhesives, compounds, covering or paint residues, etc. must be removed, e.g. by brushing, abrading, grinding or shot-blasting. Dense, smooth and metal surfaces should be degreased and abraded. On metal, pre-test for adhesion strength. Allow the primer to dry completely. The datasheets for other used products have to be observed.

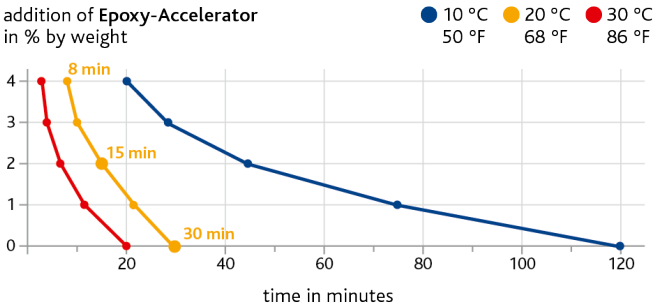
APPLICATION:

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 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. Ensure a fully sealed coat. Pay attention to the limited working time.
3. When the coat is dry to accept foot traffic, but within 48 hours, apply the second coat crosswise. For a visual differentiation between the coats, mix approx.
4. With subsequent application of levelling compounds, the last wet coat has to be gritbinded immediately with UZIN Quartz Sand 0.8 (approx. 3 kg/m²). After curing vacuum thoroughly.
5. In case of using UZIN PE 460 as a moisture barrier and using UZIN PE 280 as a bonding primer on top, the minimum quantity of UZIN PE 460 has to be 500 g/m² in one layer.
6. Clean tools immediately after use considering the recommended safety measures. Hardened material can only be removed mechanically. When applying the material always wear the recommended safety equipment.

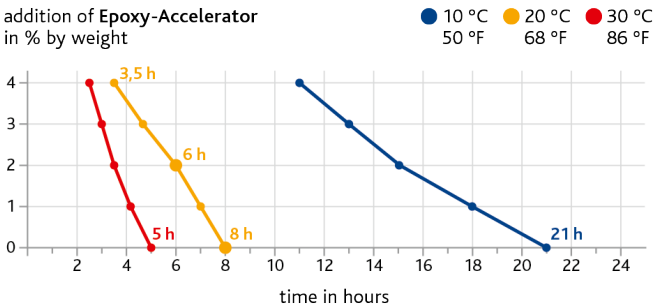
To accelerate the setting proces, up to max. 4% of UZIN Epoxy Accelerator can be added to the primer. The application of the following coat can therefore be carried out earlier, ideally at the same day.

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

Working Time



Set to Foot Traffic



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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 - 600 g/m²	5 - 21 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 - 250 g/m²	
Barrier on new, trowelled, smoothed cementitious screed	1st coat: approx. 350 g/m² 2nd coat: approx. 250 g/m²	

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

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 once again.
2. When using as a primer, apply the mixed material immediately and even onto the substrate by using the UZIN Nylon Fibre Roller.
3. To create levelling compounds, screeds or repair mortars pour the appropriate UZIN special filler or qartz sand into the mixed material and mix for at least 2 minutes with a spiral mixer.
4. Apply the homogeneous material immediately onto the substrate, then trowel and smooth.
5. Clean tools immediately after use considering the recommended safety measures. Hardened material can only be removed mechanically. When applying the material always wear the recommended safety equipment.

APPLICATION CHART:

Application	Consumption	Drying Time
Primer: Mixed resin without fillers	200 - 400 g/m² per coat	Read for foot traffic: after 12 - 24 hours* Durable for water and chemicals: after 7 days*
Levelling compound: e.g. with quartz sand 0.8 or quartz powder mix	with mixing ratio 1:1.5: approx. 10 kg UZIN PE 460 + 15 kg quartz sand 0.8 / quartz powder mix -> approx. 14 litres of self levelling compound or: each mm/m²: 0.72 kg UZIN PE 460 + 1.1 kg quartz sand 0.8 / quartz powder mix	
Screed / Mortar: e.g. with special filler UZIN XS 3.2	with mixing ratio 1:10: approx. 10 kg UZIN PE 460 + 100 kg special filler UZIN XS 3.2 -> approx. 64 litres of compressed mixture or: each cm/m²: 1.6 kg UZIN PE 460 + 16 kg special filler UZIN XS 3.2	

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

IMPORTANT NOTES:

- A shelf life of 12 months when stored in moderately cool conditions, in the original packaging. Allow containers to come to room temperature before use.
- Best applied between 15 - 20 °C, with the floor temperature above 15 °C and relative air humidity below 65%. High temperatures and high air humidity shorten the drying time. Whilst low temperatures and low air humidity lengthen the drying time.
- **Caution:** Epoxy material can become extremely hot after mixing in the container. Therefore use the material immediately, don't leave the container unattended after mixing and take the bucket outside after use to allow residues to cure.
- Two coats are required when using as a moisture barrier up to 98 % R. H.** (5 CM-%).
- A surface barrier cannot be applied onto old cement screeds with levelling compound residues or moisture sensitive substrates.
- Contact UZIN Technical Service for advice if a moisture barrier is required on cementitious screeds with underfloor heating or concrete sole plates are present.
- Contact UZIN Technical Service for advice if a radon barrier is required.
- When used over underfloor heating ensure it has been commissioned and fully tested in accordance with the manufactures guidelines.
- If installing wooden floors with UZIN reactive resin adhesives directly to the primer this must happen within 48 hours after applying the primer.
- For use in PAH decontamination please refer to the detailed system recommendations and notes on the internet (www.uzin.com).

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- For priming metal substrates, prepare a test area or contact UZIN Technical Service for advise.
- For use as a levelling compound, allow the primer to dry. Apply the compound within 24 to 36 hours on the cured primer. If this is not possible, blind the wet primer with UZIN Perlsand 0.8. Once cured, remove any loose sand which has not embedded.
- Apply epoxy mortar "wet in wet" on the primer.
- When used as a screed in interior areas and a layer thickness > 10 mm, proof of fire must be provided by the manufacturer of the screed mortar.
- Protect freshly applied epoxy mortar areas from draughts, direct sunlight and sources of heat.
- Do not mix partial quantities!
- When mixed with the UZIN Epoxy Accelerator it will not achieve EC 1 PLUS classification.
- Follow the generally acknowledged rules of the trade and technology for the installation of wood flooring and floor covering in respective of the applicable national standards (e.g. EN, DIN, OE, SIA, etc.).

SEALS OF QUALITY & ECOLABELS:

- Solvent-free
- EMICODE EC 1 PLUS / Very low emission
- European Model EPD
- Suitable for sustainable building certifications according to: DGNB, QNG, BNB, BREEAM, LEED

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. Odorless after complete curing.

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.

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