

2-Component Epoxy Screed and Mortar Resin

# codex ER 100

Reaction resin binding material for producing epoxy resin screeds and mortars

## Description:

2-component epoxy resin binding agent that can be re-emulsified – used for producing reaction resin mortars and screeds, as well as reaction resin smoothing compounds, when mixed with the appropriate codex and UZIN Quartz Sands – for interior and exterior use.

Amongst others suitable for/on:

- ▶ producing heavy-duty, chemical-resistant and rapid setting reaction resin screeds, e.g. in breweries, laboratories, industrial areas and workshops, catering kitchens and similar locations
- ▶ producing chemical-resistant repair mortars for smoothing work, filling irregularities and holes, surface finishing and in high-speed construction work
- ▶ producing reaction resin mortars for underfilling gullies, floor drains and similar structures
- ▶ producing construction- or fixing-mortars for profiles, trims, structural parts, etc.
- ▶ producing fixing mortars for ceramic tiles or blocks in swimming-pool construction, plant-room or clean-room construction
- ▶ producing fixing mortars for moisture-sensitive natural stone and tiles when installed with the thick-bed method
- ▶ absorbent and non-absorbent surfaces made from cement, calcium sulphate, concrete, rust-proof metals, solidly fixed wood surfaces, ceramic tiling, etc.
- ▶ use in interior, exterior and permanently wet locations
- ▶ in bonded constructions, on separating membranes or on thermal insulation materials

## Thickness:

Thickness range for epoxy mortars made with UZIN XS Sand:

Bonded screed:	> 8 mm
Screed on separating membrane:	> 25 mm
Screed on thermal insulation:	> 35 mm

codex thin-bed mortars or codex / UZIN smoothing compounds can be applied directly onto the cured, rough-finished screed surface.



## Product Properties / Benefits:

Reaction resin binder that can be washed off with water – based on 2-component epoxy resin produced by mixing Resin A with Hardener B. When combined with codex or UZIN Quartz Sands, produces rapid- setting and curing screeds, mortars and smoothing compounds in a range of consistencies and with very high resistance to mechanical wear and chemical attack.

Binder: Polyamine-cured epoxy-resin.

- ▶ Water- and solvent-free
- ▶ Can be washed off with water
- ▶ Chemical-resistant
- ▶ Cures with low shrinkage and stress
- ▶ Very high compressive- and tensile-strength
- ▶ Rapid-setting
- ▶ Interior and exterior use
- ▶ Solvent-free

## Technical Data:

Packaging:	metal combi-can
Packsizes:	8 kg
Shelf life:	min. 12 months
Colour:	yellowish
Hazard features:	see "Protection of the Workplace and Environment"
Mixing ratio:	A : B = 3 : 1 parts by weight see "Fillers / Consumption"
Working temperature:	10 to 25 °C / 50 °F to 77 °F
Pot life:	approx. 60 minutes*
Set to traffic / covering:	after 12 – 24 hours*
Chemical resistance:	after 5 days*

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

**Substrate Preparation:**

The substrate must be sound, dry, free from cracks, clean and free from materials that would impair adhesion. Calcium sulphate screeds must be abraded and vacuumed, either as a finishing treatment by the screed installer, or as a special service ,by the installer of the floor covering.

Brush, abrade or shot-blast to remove loose or soft surface material. Abrade off old adhesive or covering residues. Abrade any dense, smooth or metallic surfaces. On metals, test adhesion in advance. Thoroughly vacuum the surface.

Test the substrate in accordance with applicable standards and notices and report any deficiencies.

**Application:**

1. Before use, bring the containers to room temperature. Punch several times through the plastic plug and the base of the upper container (Hardener B), e.g. with a long screwdriver. Allow the hardener to drain completely into the lower container (Resin A). Remove the empty upper container and thoroughly blend both components using suitable mixing equipment (e.g. a spiral mixing paddle). Decant the mixed material into a second, clean container and mix briefly once again.
2. To produce screeds, mortars and smoothing compounds, combine the mixed reaction resin with the appropriate fillers, e.g. add codex DS 3/5, UZIN Special Fillers XS or ES and blend using mixing equipment or a forced-action mixer.
3. Immediately distribute, pull out and compact the homogeneous compound on the substrate surface. For bonded constructions, lay the mortar or screed directly onto a fresh primer made from the unfilled binding agent.
4. Continually wash off tools, equipment and contaminated surfaces during the working time. Hardened material can only be removed by mechanical means.

**Consumption table for mix ratios:**

Application	Filler Mixing Ratio
<b>Primer:</b>	Mixed resin without fillers <u>Consumption:</u> 200 – 400 g/m <sup>2</sup> per coat
<b>Smoothing Compound:</b> with UZIN Special Fillers ES	<u>Consumption for 1: 1.5 parts by weight</u> approx. 10 kg codex ER 100 + 15 kg UZIN ES gives approx. 14 litres of self-levelling mix or per mm of thickness per m <sup>2</sup> : consumption of approx. 0.72 kg codex ER 100 + 1.1 kg UZIN ES Sand
<b>Screed:</b> e.g. with UZIN Special Fillers XS ratio 1:10 to 1:15 parts by weight according to desired consistency	<u>Consumption for 1: 10 parts by weight</u> approx. 2.5 kg codex ER 100 + 25 kg UZIN XS gives approx. 16 litres of compacted mix or per mm of thickness per m <sup>2</sup> : consumption of approx. 1.6 kg codex ER 100 + 16 kg UZIN XS Sand
<b>Drainage Mortar:</b> with codex DS 3/5 Drainage Sand ratio 1:25 parts by weight	<u>Consumption for 1: 25 parts by weight</u> approx. 1 kg codex ER 100 + 25 kg codex DS 3/5 gives approx. 16 litres of compacted mix or per mm of thickness per m <sup>2</sup> : consumption of approx. 0.6 kg codex ER 100 + 16 kg codex DS 3/5

**Important Notes:**

- ▶ Shelf life minimum 12 months in original packaging when stored in relatively cool, dry conditions. Protect from frost.
- ▶ Optimum conditions are 15 – 25 °C / 59 °F – 77 °F and relative humidity below 75 %. Low substrate and room temperatures retard, whilst high temperatures accelerate the setting and readiness for covering. In summer, store in cool conditions. Do not expose the material to high levels of heat or open flame.
- ▶ Protect fresh material from ingress of wetness or moisture. Do not use on wet / damp surfaces.
- ▶ Before using in heated areas, obtain technical advice.
- ▶ The insulation or membrane under screeds must be adequately pressure-resistant and must lie perfectly level and flat.
- ▶ When using as a smoothing compound, allow the primer to set. However, the smoothing compound must be applied onto the set primer within 24 – 36 hours. Otherwise, scatter-coat the fresh primer with UZIN Fine Sand.
- ▶ During application, the material can be washed off with water; once hardened, it can only be removed by mechanical means. To make cleaning easier, the use of codex Epo Wash additive, or washing off with codex Epo Clean are recommended.
- ▶ Test in advance the compatibility of the reaction resin mortar with any pipes, cables, sheet or other construction materials with which it may come into contact.
- ▶ For waterproof surfaces, incorporate a bonded seal-coat from the codex Product Guide.
- ▶ With to high binder ratio, quartz sand may settle and a compact layer of binding agent may form on the mortar surface. This layer can only be overlaid with further epoxy resins within a period of 3 days. For coating with cement-based codex thin-bed mortars or codex /UZIN levelling levelling compounds, the screed surface must be open-pored and rough textured.
- ▶ Protect vulnerable surfaces of adjacent structures or finishes (e.g. carpets, renders, paints) with suitable coverings, adhesive tape or other measures.
- ▶ Applicable and especially recommended are the Accident Prevention Regulations of the professional trade organisations, as well as the relevant regulations, in particular the following standards and notices: DIN 18 560; DIN EN 13 318; BEB publications KH-0/U, KH-1, KH-5, KH-6, Assessment and preparation of substrates.

**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 or burns to eyes, skin or respiratory system. May cause sensitisation on 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.

Observe safety information on product label as well as safety data sheet. Once cured, presents no physiological or ecological risk.

**Disposal:**

Where possible, collect product residues and re-use. Do not empty into drains, sewers or ground. Empty, scraped and drip-free containers are recyclable. Containers with liquid residues are special waste, those with mixed and cured residues are 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.