



ARDEX EP 2000

Multifunctional epoxy resin

- Solvent-free
- Chemical resistant
- Rollable and spreadable
- Easy to use
- High adhesive strength
- Two-component



Area of application

Indoor and outdoor use. Floors.

Barrier against rising damp in concrete floors and cement screeds up to max. 8%. Primer and consolidation of substrates. Filling cracks in floor screeds and concrete. Production of epoxy screeds. Bonding agent.

Production of composite seals. For more information and processing recommendations for the production of composite seals, please contact our application engineering department on tel. no. 02754/7021-0.

Art

ARDEX EP 2000 Multifunctional Epoxy Resin is a solvent-free, low-viscosity, unfilled two-component epoxy resin.

The 4.5 kg unit consists of 3.2 kg resin (component A) and 1.3 kg hardener (component B). The 25 kg unit consists of 18 kg resin (component A) and 7 kg hardener (component B). The 1 kg unit consists of 0.7 kg resin (component A) and 0.3 kg hardener (component B).

After hardening, ARDEX EP 2000 is waterproof, frost and weather resistant, has high inherent strength and adheres practically insolubly to all suitable substrates.

ARDEX EP 2000 is resistant to aqueous salt solutions and alkalis as well as a range of diluted mineral and organic acids and organic liquids and solutions.

Processing

The resin and hardener components are pre-mixed in the original containers in the correct mixing ratio. The hardener component (component B) is added to the resin component (component A) by piercing the lid unit several times with a

pointed object. Allow the lid unit to drain completely. Then remove the lid unit and mix the components thoroughly with a spiral stirrer.

For large areas, application is usually carried out with a short-pile roller. However, ARDEX EP 2000 can also be applied with a brush or flat trowel.

After mixing, ARDEX EP 2000 can be processed for approx. 30 minutes at temperatures between +18°C and +20°C.

Lower temperatures prolong, higher temperatures shorten the working time.

ARDEX EP 2000 Multifunctional Epoxy Resin must be applied at temperatures above +5°C.

1. barrier against capillary rising damp and residual moisture in concrete floors and cement screeds; moisture content max. 8%:

The substrate must be solid, load-bearing and free of release agents, and the surface must be dry and easily wettable.

ARDEX EP 2000 Multifunctional Epoxy Resin is applied twice crosswise to the substrate, with a total quantity of at least 600 g/m². The second coat can be applied at the earliest 6 hours after the first coat, but no later than 48 hours after the first coat. Make sure there are no bubbles or cavities in the second coat.

To absorb compound layers or thin-bed mortars, the second application of ARDEX EP 2000 must be sprinkled evenly with dry quartz sand of 0.3 - 0.9 mm grain size while still fresh, or primed with ARDEX P 82 synthetic resin primer within 48 hours after hardening in dry indoor areas.

ARDEX EP 2000

Multifunctional epoxy resin

Alternatively, if there are no visual requirements for the subsequent floor or wall levelling (visible surfaces), the unsanded ARDEX EP 2000 surface can also be coated with ARDEX P 4 READY Multifunctional Primer within 24 hours. Once ARDEX P 4 READY has dried, levelling compounds up to 10 mm thick can be applied with ARDEX floor and wall levelling compounds.

2. priming and strengthening substrates with unstable surfaces:

For priming and consolidation, the substrate – concrete, cement screed, calcium sulphate screed and calcium sulphate self-levelling screed – must be absorbent, open-pored, dry and load-bearing. Calcium sulphate self-levelling screeds must be sanded.

ARDEX EP 2000 Multifunctional Epoxy Resin is applied generously to the substrate. For very porous, absorbent substrates, a second coat may be necessary within 48 hours after the first coat has hardened. The penetration depth and application quantity depend on the absorbency and surface condition of the substrate.

To check whether sufficient depth of penetration has been achieved, a test area should be created if necessary.

The above instructions must be observed for the application of compound layers and thin-bed mortars.

3. filling cracks in floor screeds and concrete:

ARDEX EP 2000 is also suitable for the force-fit sealing of cracks, construction joints and predetermined breaking points in concrete substrates, cement screeds and calcium sulphate screeds.

The substrate must be solid, load-bearing and free of release agents. To bond cracked floor screeds, the floor screed must be

- bored along the crack at intervals of 10 cm up to 2/3 of the thickness - minimum diameter of the drill holes 12 mm
- or cut with a cutting disc perpendicular to the crack. If necessary, insert renovation clips.

Cracks, drill holes and cuts must be vacuumed or blown out before filling with ARDEX EP 2000 to remove dust and dirt.

ARDEX EP 2000 Multifunctional Epoxy Resin has a low viscosity and therefore high penetration properties. Fine, non-continuous cracks can therefore be closed with unfilled ARDEX EP 2000.

However, ARDEX EP 2000 is usually filled by mixing in Portland cement, cementitious levelling compounds and thin-bed mortar powders or fine quartz sand.

For crack widths up to 5 mm, we recommend a mixing ratio of approx. 1 part ARDEX EP 2000 : 1½ parts filler. For wider cracks, predetermined breaking points or joints, a correspondingly higher filler content can be selected. Sprinkle fine quartz sand over the fresh repair areas.

4. bonding agent

As a bonding agent for

- Concrete casting
- Screed work
- Composite screeds

ARDEX EP 2000 is applied generously to the substrate. The fresh mortar must be worked into the bonding agent while it is still fresh.

The substrate must be solid, load-bearing and free of release agents, and the surface must be dry.

5. preparation of floor screeds

Mixed with quartz sand for producing epoxy resin screeds in composite and on a separating layer in permanently wet and outdoor areas. ARDEX EP 2000 epoxy resin screeds can be walked on after just 12 hours and are ready for laying after 24 hours. The general guidelines and standards DIN 18560 and ÖNORM B 3732 apply to the application of floor screeds.

Processing:

Quartz sand, supplied in 25 kg bags, must be used as an aggregate.

The mixing ratio is approx. 1 : 8 by weight (3 x 1 kg ARDEX EP 2000 : 25 kg quartz sand) or approx. 1 : 11 by weight (e.g. 4.5 kg ARDEX EP 2000 : 50 kg quartz sand).

Processing with a compulsory mixer:

Before mixing the mortar with suitable compulsory mixers, the resin and hardener components, which are adjusted to each other in terms of quantity in the containers, are mixed intensively with a suitable stirrer (spiral stirrer) to form a uniform, streak-free mortar. This mixture is added to the sand in the mixer.

After completion of the work, the tools and mixing containers are cleaned with a suitable tool cleaner.

Execution:

The mortar is spread over the surface and wiped with a straight edge. The surface is then compacted and smoothed with a smoothing blade or trowel. Walk boards are required to walk on the freshly applied screed layer. Smoothing with a wing or disc trowel is not possible.

When installing ARDEX EP 2000 epoxy screed on a separating layer, the minimum layer thickness is 25 mm.

When laying ceramic tiles and natural stone outdoors, the field size must be limited to a maximum of 9 m² with a side length of no more than 3 m. Indoors, the field size is 40 m² with a side length of less than 8 m.

Ceramic tiles can be laid with ARDEX X 78 MICROTEC flex adhesive, floor, natural stones with ARDEX X 32 flexible laying mortar.

Movement, edge and connection joints as well as dummy joints must be formed as usual for cement screeds. Building separation joints must be transferred to the floor screed. Joints in doorways must be formed as edge joints or dummy joints.

Load capacity

ARDEX EP 2000 Multifunctional Epoxy Resin can be subjected to mechanical stress after 24 hours of curing at temperatures between +18°C and +20°C, and chemical resistance is achieved after approx. 7 days.

Please note

ARDEX EP 2000 must be used immediately after mixing and applied quickly. At the end of the working time, ARDEX EP



ARDEX EP 2000

Multifunctional epoxy resin

2000 tends to generate a lot of heat due to its high reactivity. The more material is left in the container, the higher the heat generation. The container should then no longer be touched, but loosely covered with the lid and placed in a cool room or outside by the handle.

In case of doubt, carry out a test application.

The material requirement for surface application depends on the absorbency of the substrate, with approx. 300 g/m² per application.

When filling cracks and joints, the material requirement depends on the width and depth, approx. 300 g/m.

Note

The information in our safety data sheets must be observed.
For commercial users only!

Additional information

Handle with care during processing: avoid dust formation and release into the environment.

Dispose of the container and its contents in a solidified state in accordance with applicable local/regional/national/international regulations.

Technical data according to ARDEX quality standard

Mixing ratio approx.	Component A	Component B	Condition
	1 Weight portion	8 Weight parts quartz sand	Is determined by the container when used as a primer and vapour barrier
	1 Weight portion	11 Weight parts quartz sand	When used as an epoxy resin screed, depending on the desired mechanical properties
			When used as an epoxy resin screed, depending on the desired mechanical properties

Material requirement approx.	Component A	Component B	Consumption	Condition
	2.2 kg ARDEX EP 2000	17.3 kg quartz sand	300 G/m	Per m ² and cm with a mixing ratio of 1 : 8
	1.6 kg ARDEX EP 2000	17.3 kg quartz sand		Per m ² and cm with a mixing ratio of 1 : 11

Fresh weight approx.	1,10 kg/l
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Application properties

Processing time approx.	30 Minute(s)
Can be walked on after approx.	Time 12 Hours 12 Hours 6 Hours Condition When used as epoxy resin screed (mixing ratio 1:8) When used as epoxy resin screed (mixing ratio 1:11) As a primer coat
Load capacity	Can withstand mechanical stress after approx. 24 hours, can withstand chemical stress after approx. 7 days
Ready for laying after approx.	Covering When used as epoxy resin screed (mixing ratio 1:8) When used as epoxy resin screed (mixing ratio 1:11) Duration 24 Hours 24 Hours
Application Ambient conditions	+20°C

Mechanical properties

Bending tensile strength approx.	Time After 7 days After 7 days Bending tensile strength approx. 19 N/mm ² 14 N/mm ² Condition When used as epoxy resin screed (mixing ratio 1:8) When used as epoxy resin screed (mixing ratio 1:11)
Compressive strength approx.	Time After 7 days After 7 days Compressive strength of approx. 72 N/mm ² 53 N/mm ² Condition When used as epoxy resin screed (mixing ratio 1:8) When used as epoxy resin screed (mixing ratio 1:11)

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Product details

Labelling according to GHS/CLP	Labelling according to GHS/CLP See relevant safety data sheet See relevant safety data sheet	Component Resin Hardener
Self-service regulation	3	
Labelling according to ADR	Component Resin Hardener	Labelling according to ADR See relevant safety data sheet See relevant safety data sheet
Packaging	4.5 kg tin with lid unit net; 1 kg tin with lid unit net	
Storage	Can be stored in dry rooms for approx. 12 months in the original sealed container.	

