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# ARDEX EP 2000™

## Substrate Preparation Epoxy Primer

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Two-component epoxy primer for the installation of ARDEX underlayments and toppings

Highly reactive primer for concrete and non-porous substrates such as terrazzo and epoxy coatings

Required primer for decorative applications of ARDEX self-leveling toppings

Bonds tenaciously to underlying substrates and produces an extremely hard surface

Helps to minimize cracking in underlayments and toppings

Can be used as crack filling material

Can be used to provide secondary top-down waterproofing

Solvent-free, low viscosity, 100% solids epoxy resin

One-coat primer application; receives sand broadcast

Use for interior and exterior substrates

# ARDEX EP 2000™

## Substrate Preparation Epoxy Primer

### Suitable Applications

- For priming appropriate substrates prior to application of ARDEX Underlayments and Toppings. Refer to the specific requirements for the ARDEX underlayment or topping being installed.
- Do not use over concrete with excessive moisture. If concrete moisture control is needed: Contact the ARDEX Technical Service Department or visit the ARDEX Americas website for moisture control options: ([ardexamericas.com/products/moisture-control](http://ardexamericas.com/products/moisture-control)).
- Secondary Top-Down Waterproofing (not for roofing systems).

### Suitable Substrates

- Concrete (structurally sound)
- Absorbent terrazzo on concrete†
- Other approved, non-porous materials on concrete†:
  - Non-porous (non-absorbent) cementitious terrazzo
  - Ceramic, quarry or porcelain tiles
  - Epoxy Coatings
  - Epoxy terrazzo
  - Concrete treated with certain curing compounds (test area only; for full instructions, see:

[www.ardexamericas.com/properprep](http://www.ardexamericas.com/properprep)

†Must be sound, solid and well-bonded to underlying, structurally sound substrates.

### Jobsite Conditions

During installation and cure, substrate and ambient temperatures must be a minimum of 50° F / 10°.

### Step 1: Substrate Preparation (Proper Prep™)

For full details on Proper Prep, reference the following articles at [ardexamericas.com/services/properprep](http://ardexamericas.com/services/properprep):

- [Article 1: Preparing Concrete for Bonded ARDEX or HENRY Applications](#)
- [Proper Prep Brochure](#)

Concrete and terrazzo substrates must be clean and prepared to a minimum CSP 3 / maximum CSP 5 (icri.org). Non-porous substrates, such as epoxy coatings and ceramic, quarry and porcelain tiles, must be mechanically cleaned and profiled to ensure a proper bond.

Mechanically clean substrate, if necessary, by shot blasting or similar means. Do not use acid etching, adhesive removers, solvents or sweeping compounds, as these are bond breakers. Sanding is not an effective method to remove contaminants from concrete.

Substrate must be dry and alkali free. All substrates must be sound, solid and thoroughly clean of all bond-breaking contaminants, including but not limited to: overwatered or otherwise loose or weak material; dirt, dust, wax, grease, paints and oils; all curing compounds and sealers; and all adhesive residues.

Following preparation, thoroughly vacuum to remove all excess dirt and debris.

Handle and dispose of asbestos and other hazardous materials in accordance with prevailing regulations, which supersede the recommendations in this document.

### Step 2: Treating Joints and Cracks

All moving joints, including expansion joints and isolation joints, as well as all moving cracks, must be honored up through the entire flooring system, including the finishing course. Under no circumstances should this product, the moisture control system, the selected primer or any other component of the flooring system be installed over these. For ARDEX topping installations, all joints must be honored, including saw cuts (control joints) and other dormant joints.

Dormant control joints and dormant cracks that will not be honored may be pre-filled; however, this filling is not intended to act as a repair method that will eliminate the possibility of telegraphing. Non-structural materials are unable to restrain movement within a concrete slab. Cracks will telegraph in any area that exhibits movement, such as an active crack, an expansion or isolation joint, or an area where dissimilar substrates meet. We know of no method to prevent this telegraphing. For best results, ARDEX recommends pre-filling dormant joints and dormant cracks that will not be honored with ARDEX ARDIFIX™ Low Viscosity Rigid Polyurethane Crack and Joint Repair.

### **Step 3: Mixing and Application**

#### **Recommended Tools**

CSP 3 - 4: Notched squeegee or Short-nap roller 3/8"

CSP 5: Long-nap paint roller

Low speed drill; epoxy mixing paddle; paintbrush

#### **Mixing**

**CAUTION!** Once the product is mixed thoroughly, immediately pour the entire contents of the container onto the prepared concrete surface. Due to its high reactivity, this epoxy has a tendency toward intense heat buildup when in mass, such as when left in the original container. If this occurs, do not touch the container. Close the lid loosely, and transport the container by the handle to a cool room or outdoors until it sets and cools.

For blending, the hardening agent (Part B) is added to the resin (Part A). After opening each container, mix the resin (Part A) thoroughly before blending. Pour all of the hardener into the resin portion, and then mix thoroughly for a minimum of 3 minutes using a low speed drill and an epoxy mixing paddle. Once mixed, pour some of the material back into the hardener container, mix for 30 seconds, and then pour all of the contents back into the resin container. This step ensures that no hardener residue remains unreacted. Mix for an additional 30 seconds before applying.

#### **Application**

Approximate application rate: 150 - 200 sq. ft. (14 - 18.5 m<sup>2</sup>) Per Unit. Dependent on surface profile, density and porosity.

Once the product is mixed thoroughly, immediately pour the entire contents of the container onto the prepared surface. Do not place container upside down on surface. Immediately apply in a uniform direction. Use a short-nap paint roller or notched squeegee with backrolling for smoother surfaces or a longer nap roller for more uneven surfaces. Use a paintbrush for less accessible areas and corners.

#### **Sand Broadcasting**

Dependent on jobsite conditions, epoxy will stay wet / fresh for approximately 30 minutes (70°F / 21°C). Lower temperatures will lengthen this time, while higher temperatures will shorten it dramatically. Sand broadcast must proceed immediately while epoxy is fresh. Sand must be clean, dry and fine (approximately 1/40" - 1/50" in grain size or sieve size #30 or #35). Broadcast consistently over the entire area wearing a NIOSH-approved dust mask in conformance with OSHA requirements regarding the handling of sand (crystalline silica). Use approximately 1 lb. of sand per sq. ft. of area. Do not stand or walk on the freshly applied epoxy when broadcasting the sand. Once an area has been covered completely with sand, the surface of the sand can be walked on, so long as care is taken not to expose or disturb the epoxy. Once the sand broadcast is complete, avoid traffic until set (Minimum 6 hours, 70°F / 21°C).

#### **Minimum Set Time (70°F / 21°C)**

16 hours prior to underlayment or topping installation. 6 hours prior to sand cleanup and/or optional second coat for secondary top-down waterproofing.

## **Sand Cleanup (Where Applicable)**

Once set, remove all excess sand as follows:

Do not sweep. Using a rubber squeegee, consolidate excess sand into piles, and shovel the piles of sand into barrels designated for that use. The collected sand should be filtered through a screen to remove debris and allow the sand to be used on future projects.

Vacuum remaining sand using a heavy-duty, bucket-style (Shop-Vac-style) vacuum and HEPA dust extraction vacuum system.

The clean, prepared surface of the sand is the priming system for the ARDEX underlayment or topping. No additional priming is required. There is no limit to how long the sanded surface can remain open before installing the ARDEX underlayment or topping provided that the surface does not become contaminated. If the underlayment or topping will not be installed immediately, protect the surface from construction traffic, dirt and debris using Masonite or similar.

## **Step 4 (If / as needed): Secondary Top-Down Waterproofing**

For secondary top-down waterproofing, a second coat is required over the initial, sand-broadcasted coat. After the initial coat has set a minimum of 6 hours (70) and all excess sand is removed as detailed above, apply a second coat at a 90° angle to the first. Due to the textured sand surface of the first coat, the coverage rate of the second coat will be diminished (approximately 100 sq. ft. / 9 m<sup>2</sup> per unit). Immediately broadcast sand into the fresh epoxy as detailed above.

After 16 hours, remove all excess sand as detailed above, and proceed with the ARDEX underlayment or topping installation.

Please note the following regarding secondary top-down waterproofing:

- This application is not to be used as any part of a roofing system.
- ARDEX cannot be held responsible for water passing through any existing or new cracks or joints.
- The application of top-down waterproofing does not affect the water resistance of subsequently installed ARDEX underlyments or toppings. Always observe the suitable application environments for the selected underlayment or topping.

## **Underlayment / Topping Installation**

Refer to the specific requirements in the technical data sheet for the selected ARDEX Underlayment or Topping.

## **Cracking**

Thinly applied, non-structural overlays are not capable of restraining movement in the structural slab, which could lead to reflective cracking. Telegraphing is common where there is slab deflection, vibration from truck traffic and/or subways, swaying or “racking” of high-rise buildings, existing cracks or joints in the slab and/or electrical boxes, vents or other metal inserts. While priming with ARDEX EP 2000 is the best way to minimize the possibility of reflective cracking, cracks may telegraph up into the surface in any area that exhibits movement.

Additionally, certain jobsite conditions can lead to hairline cracking. Hairline cracking, while aesthetically unpleasant, typically does not affect the overall performance of the overlay. The most common cause of hairline cracking is excessively rapid moisture evaporation from the product during cure due to low ambient humidity and/or rapid air movement in the space. Hairline cracking can also occur when there is even slight movement or deflection in the existing substrate.

If cracking occurs, we recommend sounding the affected areas to ensure that the product is well-bonded to the substrate.

## Notes

Intended for use by professional contractors who are trained in the application of this product and/or similar products. Not sold by ARDEX through home improvement centers. For information on ARDEX Academy trainings, visit [ardexamericas.com](http://ardexamericas.com). Never mix with cement or additives outside of our written recommendations. In accordance with industry standards, and to determine the suitability of the products for the intended use, always install an adequate number of properly located test areas including the finish flooring. As floor coverings vary, always contact and rely upon the floor covering manufacturer for specific directives, such as maximum allowable moisture content, adhesive selection and intended end use of the product.

Observe the basic rules of concrete work, including the minimum surface and air temperatures detailed above. Install quickly if the substrate is warm, and follow the warm weather installation guidelines available on our website. If the installation is not proceeding as expected, Contact the ARDEX Technical Service Department before proceeding further. Dispose of packaging and residue in accordance with prevailing regulations. Do not flush material down drains. Do not reuse packaging.

## Precautions

Carefully read and follow all precautions and warnings on the product label. For complete safety information, please refer to the Safety Data Sheet (SDS) available at:

[www.ardexamericas.com](http://www.ardexamericas.com).

## Technical Data According to Manufacturer Quality Standards

Physical properties are typical values and not specifications. Mixing and Testing completed at 70°F / 21°C.

|                                     |   |
|-------------------------------------|---|
| <b>Mixing Ratio:</b>                | Add entire pre-measured contents of Part B (Hardener) into Part A (Resin).  |
| <b>Approximate Coverage:</b>        | 150 - 200 sq. ft. (14 - 18.5 m <sup>2</sup> ) Per Unit<br>Dependent on surface profile, density and porosity.   |
| <b>Working Time:</b>                | 30 minutes  |
| <b>Minimum Set Time / Walkable:</b> | 16 hours prior to underlayment or topping installation. 6 hours prior to sand cleanup and/or optional second coat for secondary top-down waterproofing.                             |
| <b>VOC:</b>                         | 12.4 g/L, A+B, Per ASTM D2369   |
| <b>Packaging:</b>                   | 1.089 gal. (4.12 L) Unit  |
| <b>Storage:</b>                     | Store in a cool, dry area. Do not leave units exposed to sun. Keep from freezing. Keep away from heat.  |
| <b>Shelf Life:</b>                  | 12 months, if unopened and properly stored  |
| <b>Warranty:</b>                    | ARDEX L.P. Standard Limited Warranty applies. For full warranty details: <a href="http://www.ardexamericas.com/services/warranties">www.ardexamericas.com/services/warranties</a> . |

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