



ARDEX EP 2000™

Substrate Preparation Epoxy Primer

Two-component epoxy preparation material for the installation of ARDEX Underlayments and Toppings

Primer for concrete and non-porous substrates such as terrazzo and epoxy coatings

Required primer for decorative applications of ARDEX Self-leveling Toppings

Helps to minimize cracking in underlayments and toppings

Can be used as crack filling material

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

Receives sand broadcast

Use for interior and exterior substrates

**ARDEX Engineered Cements
400 Ardex Park Drive
Aliquippa, PA 15001 USA
Tel: 724-203-5000
Toll Free: 888-512-7339
Fax: 724-203-5001
www.ardexamericas.com**

ARDEX EP 2000™

Substrate Preparation Epoxy Primer

Description and Usage

ARDEX EP 2000™ is a solvent-free, low viscosity, two-component, 100% solids epoxy resin formulated for use with ARDEX Underlayments and Toppings. It is especially suited to prime concrete and other structurally sound and solid substrates, including terrazzo, ceramic tile and epoxy coatings, prior to installing ARDEX products. ARDEX EP 2000 is the required primer for ARDEX DESIGNER FLOORS™ using ARDEX SD-T® SELF-DRYING, SELF-LEVELING CONCRETE TOPPING. A highly reactive epoxy, ARDEX EP 2000 produces an extremely hard surface and bonds tenaciously to the substrate to help minimize cracking in the ARDEX Underlayment or Topping. ARDEX EP 2000 is applied in one coat that will receive a sand broadcast layer. It can also be used as a crack filling material prior to the installation of ARDEX Cements.

Substrate Preparation

All substrates must be solid, thoroughly clean and free of oil, wax, grease, asphalt, latex and gypsum compounds, curing and sealing compounds, and any other contaminant that might act as a bond breaker. If necessary, mechanically clean the substrate until it is sound and solid by shot blasting, scarifying or similar. Overwatered, frozen or otherwise weak surfaces must also be mechanically prepared until sound and solid. Acid etching, adhesive removers, solvents and sweeping compounds are not acceptable means of cleaning the substrate. Sanding equipment is not an effective method to remove curing and sealing compounds. Prepared concrete substrates must have a minimum ICRI Concrete Surface Profile of 3 (CSP #3). Any additional preparation needed to achieve this must likewise be mechanical. Epoxy and other coating systems must be mechanically roughened to ensure a proper bond. Depending on the ARDEX Underlayment or Topping application, additional mechanical profiling of the substrate may be required. Please refer to the individual ARDEX product brochures for details. Substrates must be dry for a successful installation. Substrate temperatures must be a minimum of 50°F (10°C) for the installation of ARDEX products. For further information, please refer to the ARDEX Substrate Preparation Brochure.

Dormant Cracks and Saw-Cut Joints

ARDEX EP 2000 has a low viscosity, and can therefore be used to fill small, non-moving cracks in existing concrete substrates. Cracks up to 1/16" (1.5 mm) in width should be filled with straight epoxy, while cracks up to 3/16" (4.7 mm) in width should be filled with epoxy that has been filled with fine sand (less than 1/50 of an inch in grain size, or 98.5% passing sieve size #30 or #35) at a ratio of 1 part ARDEX EP 2000 to 1.5 parts sand, by volume. Once the cracks have been properly filled, proceed with the installation of the primer layer of ARDEX EP 2000.

If ARDEX EP 2000 will not be used for full field priming, please contact the ARDEX Technical Service Department for recommendations.

Moving Joints and Cracks

In no case should expansion joints, isolation joints, construction joints or moving cracks be filled with this epoxy. All moving joints and cracks must be honored up through the ARDEX Underlayment or Topping and the floor covering or coating by installing a flexible sealing compound specifically designed for use over moving joints, such as ARDEX ARDISEAL RAPID PLUS™ or similar.

ARDEX cannot be responsible for problems that arise from expansion, isolation or construction joints, or from existing cracks or new cracks that may develop after the system has been installed.

Recommended Tools

Nylon brush, short-nap or long-nap paint roller, mechanical mixing paddle, and a 1/2" heavy-duty low speed drill.

Mixing and Application

A single 10 lb. (4.5 kg) container of ARDEX EP 2000 contains separate, pre-measured quantities of the Resin (Part A) and the Hardener (Part B). After opening each container, stir the individual components thoroughly before blending. The hardening agent (Part B) is added to the resin (Part A). Pour all of the hardener into the resin portion and stir thoroughly for a minimum of 3 minutes using a low speed drill and an epoxy mixing paddle. Once mixed, pour some of the epoxy back into the hardener container, stir for 10 seconds, and then pour all of the contents back into the resin container. Mix for an additional 30 seconds before applying.

Apply the freshly mixed epoxy to the prepared surface using a short-nap paint roller for smoother surfaces, or a long-nap roller for more uneven surfaces. ARDEX EP 2000 can also be applied with a paintbrush for hard to reach areas and corners. ARDEX EP 2000 is applied at a rate of approximately 150 to 200 sq. ft. (13.9 to 18.5 m²) per unit, depending on surface profile.

While the epoxy is still in a fresh state (maximum 30 minutes), broadcast an excess of fine sand (less than 1/50 of an inch in grain size, or 98.5% passing sieve size #30 or #35) consistently over the entire area. When broadcasting the sand, use a NIOSH approved dust mask in conformance with OSHA requirements regarding the handling of sand. Avoid standing or walking on the freshly applied primer when broadcasting the sand. Once an area has been completely covered with sand, the surface of the sand can be walked on, being careful not to expose the

primer at any time. Use about 2/3 lb. of sand per square foot of area. Once the sand broadcast is complete, avoid all traffic over the surface for a minimum of 6 hours.

After 16 hours, broom sweep and vacuum the surface to remove all loose sand. Uncontaminated loose sand can be re-used on the next project. Protect this surface from construction traffic, dirt and debris using Masonite® or similar until the ARDEX Underlayment or Topping is installed. The clean, prepared surface of 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 exposed before installing the ARDEX Underlayment or Topping provided that the surface does not become contaminated. Install the ARDEX Underlayment or Topping in accordance with printed instructions found in the corresponding ARDEX Technical Brochures.

Top-Down Waterproofing

In addition to being used as a single-coat primer application, ARDEX EP 2000 can be used in a double application for secondary top-down waterproofing when used in combination with ARDEX Underlayments and Toppings. The ARDEX EP 2000 waterproofing system is suitable for use over standard absorbent concrete and certain non-porous substrates, including ceramic and quarry tile. Additionally, ARDEX EP 2000 can be used for interior or exterior installations that are subject to top-down moisture, provided that the appropriate ARDEX Underlayment or Topping is then installed and used in accordance with its written recommendations.

For the waterproofing application, two coats of ARDEX EP 2000, both with sand broadcast, are required. Following the standard installation guidelines presented in the technical brochure, the first coat is rolled onto the prepared substrate at a coverage rate of 150 sq. ft. (13.9 m²) per unit. Immediately broadcast sand to refusal into the fresh epoxy (max. 30 minutes). After allowing the first coat to dry for a minimum of 6 hours, sweep and vacuum the excess sand and apply a second coat at a 90° angle to the first. Immediately broadcast sand to refusal into the fresh epoxy (max. 30 minutes). Please note that due to the textured sand surface of the first coat of ARDEX EP 2000, the coverage of the second coat will be diminished (approximately 100 sq. ft./9.2 m² per unit). After a 16-hour cure and the removal of excess sand from the second coat, the ARDEX EP 2000 is ready to accept the installation of ARDEX Underlayments or Toppings, as suitable to jobsite conditions.

With regard to cracks, this will confirm that we recommend the use of a two-part, low viscosity, high modulus, 100% solids, fully rigid crack and joint filler, such as ARDEX ARDIFIX™, to fill small, non-moving cracks

(max. 1/8"/3 mm) as well as control joints (saw-cuts) in existing concrete substrates. For dormant cracks, ARDEX EP 2000 can also be used as outlined above. The filling of dormant cracks and control joints (saw-cuts) is recommended in order to create continuous waterproofing over the entire concrete surface.

In no case should expansion joints, isolation joints, construction joints or moving cracks be filled with these materials. All moving joints and cracks must be honored up through the ARDEX Underlayment or Topping and the floor covering or coating by installing a flexible sealing compound specifically designed for use over moving joints, such as ARDEX ARDISEAL™ RAPID PLUS. ARDEX cannot be responsible for water passing through any of these moving cracks or joints, nor through any new cracks that may develop after the system has been installed.

In addition, when considering ARDEX EP 2000 for waterproofing, please be aware that a waterproofing application of ARDEX EP 2000 beneath an ARDEX leveling compound does not change the water resistance properties of the leveling compound, or of the adhesive, finished flooring and/or coating to be installed. The products selected should be appropriate for the environment in which they will be installed.

Finally, please be advised that ARDEX EP 2000 is not to be used as a roofing system, or as any part of a roofing system.

Notes

ARDEX EP 2000 has a working time of approximately 30 minutes at 70°F (21°C). Lower temperatures will lengthen the working time, while higher temperatures will dramatically shorten it. Do not apply ARDEX EP 2000 if surface and air temperatures are below 50°F (10°C), or if the surface temperature of the substrate is within 5°F (2.8°C) of the dew point.

Once the ARDEX EP 2000 is thoroughly mixed, begin using it immediately and without interruption. Due to its high reactivity, this epoxy has a tendency towards intense heat build-up, especially 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 into a cool room or outdoors until it sets and cools, being sure to keep it away from combustible materials.

Store container at room temperature (50°F to 90°F/10°C to 32°C). Keep from freezing and excessive heat. If the container is exposed to temperatures below 50°F (10°C), do not use, and contact the ARDEX Technical Service Department for more information.

Precautions

RESIN

⚠WARNING! Causes skin and eye irritation. Vapors may cause respiratory irritation. May cause allergic reactions. Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Avoid prolonged contact with skin. Wash thoroughly after handling. Keep container tightly closed. Use only with adequate ventilation. **KEEP OUT OF THE REACH OF CHILDREN.**

HARDENER

⚠DANGER! Combustible liquid and vapor. Toxic. Corrosive. Causes skin and eye burns. Harmful if inhaled, swallowed or absorbed through the skin. Contains components which may be easily absorbed through the skin. May cause severe irritation to the respiratory tract if vapors are inhaled. May cause allergic reactions. Keep away from heat and flame. Do NOT get into eyes, on skin or on clothing. Do NOT breathe vapor. Do NOT swallow. Wash thoroughly after handling. Clean contaminated clothing before reuse. Keep container tightly closed. Use only with adequate ventilation. **KEEP OUT OF THE REACH OF CHILDREN.**

Technical Specifications According to ARDEX Quality Standards

Physical properties are typical values and not specifications.

Mixing Ratio:	Add entire pre-measured contents of Part B (Hardener) to Part A (Resin)
Coverage:	Approx. 150 to 200 sq. ft. (13.9 to 18.5 m ²) per mixed unit depending on surface profile. (0.2 lbs. per linear foot when used as a crack filler)
Effect of pH (Immersion in Concentrated KOH with pH of 14):	No effect
Working Time:	30 minutes
Pot Life:	30 minutes
Walkable:	Min. 6 hours after sand broadcast
Cure Time Before Installing ARDEX Underlayment or Topping:	Min. 16 hours
Packaging:	10 lb. (4.5 kg) net weight
Storage:	Store in a cool dry area. Do not leave containers exposed to sun. Keep from freezing. Keep away from heat.
Shelf Life:	One year unopened
Warranty:	ARDEX Engineered Cements Standard Limited Warranty applies.

AT135 ENG 04/11

ARDEX Engineered Cements
400 Ardex Park Drive
Aliquippa, PA 15001 USA
Tel: 724-203-5000
Toll Free: 888-512-7339
Fax: 724-203-5001
www.ardexamericas.com