



ARDEX SD-M

Designer Floor Finish™

Use over concrete, terrazzo and ceramic, quarry and porcelain tile

Provides a smooth, permanent, durable finish

Easy to mix and apply

Mixes with water only, no additives necessary

Outstanding coverage with excellent bond

Mold and mildew resistant

Use for interior floors only

Can be used as a pinhole filler for polished concrete and ARDEX Polished Concrete Systems (APCS) applications

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Designer Floor Finish™

Suitable Substrates

- Concrete (structurally sound)
- Absorbent terrazzo on concrete†
- Concrete substrates with radiant heat††
- Non-porous (non-absorbent) cementitious terrazzo
- Ceramic, quarry or porcelain tiles
- Properly installed ARDEX moisture control systems on concrete

†Must be sound, solid and well-bonded to underlying, structurally sound substrates. It is the responsibility of the installation contractor to ensure the substrate is rigid, well supported, properly anchored and free of undue flex and vibration.

††Radiant heat must be turned off and allowed to cool to room temperature prior to proceeding with installation. Radiant heat must be left off until all installation steps are completed and the sealer or coating cures in accordance with manufacturer instructions. See specific instructions under Steps 4 and 5 below.

Suitable Applications

- All grade levels
- Dry areas only
- Interior applications only
- Areas to receive foot and/or moderate, rubber-wheeled forklift traffic and similar*
- Not for heavy-duty manufacturing, industrial floors or chemical environments requiring customized industrial toppings

*Excessive service conditions such as and similar to the following will cause gouging and indentations:

- Steel- or hard plastic-wheeled traffic
- Dragging heavy metal equipment, loaded pallets with protruding nails, heavy furniture and/or fixtures over the floor

Job Conditions

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

Step 1: Moisture Evaluation and Testing

This product is intended for interior, dry spaces. Hydrostatic pressure, plumbing leaks, flood factors and other sources of water infiltration must be identified and corrected prior to installation. This product is not a vapor barrier and will allow free passage of moisture vapor.

Test concrete in accordance with ASTM F2170. Moisture control is required if the RH exceeds the limitations imposed by the sealer or coating manufacturer.

Step 2: Substrate Preparation (Proper Prep™)

For full details on Proper Prep, reference the following articles at ardexamericas.com/services/properprep:

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

If necessary, mechanically clean the substrate 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 free of excess moisture and alkali. All substrates must be sound, solid and thoroughly clean of all bond-breaking contaminants, including but not limited to: dirt, dust, wax, grease, paints and oils; all curing compounds and sealers; overwatered or otherwise loose or weak material; and all adhesive residues. Handle and dispose of asbestos and other hazardous materials in accordance with prevailing regulations, which supersede the recommendations in this document.

If moisture control is not required, select applications require priming. See the following section for further details.

Priming Method Selection (select applications)

If a moisture control course will not be applied, priming is needed only for select applications as follows:

- ARDEX P 51™ Primer
- ARDEX EP 2000;
- ARDEX MC RAPID (primer application)

Substrate (Dry areas only Interior applications only; All grade levels)	Priming Course
Prior to encapsulating heating system with ARDEX K 13 or ARDEX K 40:	ARDEX EP 2000; ARDEX MC RAPID (primer application)
Prior to applying ARDEX SD-M over encapsulated radiant heating system	ARDEX P 51 mixed 3 parts water to 1 part primer by volume
Extremely absorbent concrete	ARDEX P 51 "double prime"
Non-porous (non-absorbent) cementitious terrazzo Ceramic, quarry or porcelain tiles	ARDEX EP 2000
Standard absorbent (porous); aesthetically critical areas (Optional)**	ARDEX EP 2000; ARDEX MC RAPID (primer application)

**ARDEX EP 2000 and ARDEX MC RAPID are highly reactive epoxies that bond tenaciously to the substrate to minimize cracking in ARDEX toppings. Follow mixing and application instructions in the appropriate technical data sheet, including sand-broadcast to refusal.

Minimum Preparation

In all cases, substrate must be clean; additional prep may be needed, as follows:

Substrate	Minimum Preparation
Concrete to receive ARDEX MC RAPID or ARDEX EP 2000	Mechanically remove all adhesive residue, sealers, curing compounds, tiles, mortars and epoxy coatings down to clean, sound, solid concrete / terrazzo Concrete and terrazzo substrates must be clean and prepared to a minimum CSP 3 / maximum CSP 5 (icri.org)
Concrete to receive ARDEX P 51	Substrate must be clean and absorbent (ASTM F3191)

Vacuuming

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

Step 3: Treating Joints and Cracks

Under no circumstances should any product herein be installed over joints (including control joints, expansion joints, isolation joints, etc.) or moving cracks. Honor all joints and moving cracks.

If an ARDEX moisture control system will be installed (see "Moisture Testing" section above): All dormant cracks greater than a hairline (1/32" / 0.8 mm) that will not be honored must be pre-filled with ARDEX ARDIFIX™ Low Viscosity Rigid Polyurethane Crack and Joint Repair and sand broadcasted to refusal in strict accordance with the technical data sheet.

Step 4: Install Appropriate Moisture Control or Priming Course (if needed)

Products may need longer drying times with low surface temperatures and/or high ambient humidity. Do not proceed with subsequent steps before product has dried thoroughly.

Follow the instructions in the respective technical data sheet..

Step 5: Encapsulate Radiant Heating Systems (as needed)

After priming with ARDEX EP 2000 or ARDEX MC RAPID (primer application) and sand broadcast, install either ARDEX K 13 or ARDEX K 40 in accordance with the appropriate technical data sheet. Once ARDEX underlayment is cured, prime with ARDEX P 51 mixed 3 parts water to 1 part primer by volume. Allow the ARDEX P 51 to cure a minimum of 30 minutes.

Step 6: Mixing and Application**Recommended Tools**

Margin trowel; Mixing container; ARDEX T-2 Ring Mixing Paddle; 1/2" (12 mm) heavy-duty drill (min. 650 rpm); Appropriate notched trowel; 1/2" (12 mm) heavy-duty drill (min. 650 rpm); appropriate measuring bucket; Steel trowel

Water Ratio

- 2 quarts (1.9 L) clean water Per Unit
- 2.5 parts powder: 1 parts clean water by volume (standard, small-batch applications)
- 3.5 parts powder: 1 parts clean water by volume (filling pop-outs and spalls up to 2" / 5 cm in diameter and 1/2" / 12 mm deep)

Thickness of Application

Minimum two coats, approximate thickness of 20 mils / 500 microns (about the thickness of a standard business card); not to exceed 1/16" (1.5 mm).

Pour the water in the mixing container first, and then add powder while mixing with the mixing paddle and a 1/2" (12 mm) heavy-duty drill (min. 650 rpm). Mix thoroughly for approximately 2 to 3 minutes to obtain a lump-free mix. Do not overwater! Additional water will weaken the compound and lower its strength.

Small batches may be mixed by hand. Use a margin trowel, and mix vigorously. Just prior to application on the substrate, the mixture should be stirred again to ensure a creamy, smooth, lump-free consistency.

As this product is installed in thin applications, the profile of the substrate can affect the flatness and smoothness of the product. The thickness of the application should be calculated based on the surface profile of the substrate and the specified tolerances of the coating or sealer.

Application

After mixing, apply the product to the substrate with the flat side of a steel trowel to obtain a solid mechanical bond before applying the desired thickness. Apply sufficient pressure to fill all defects and to feather the product onto the subfloor surface. Use the least amount possible to achieve desired smoothness. Apply 2 - 3 coats. Subsequent coats can be applied as soon as applied coats have hardened and will not be damaged by the trowel.

Use as a Pinhole Filler for Polished Concrete and APCS

After metal, transition and initial resin processing is complete, thoroughly vacuum the surface of the concrete or concrete topping. If pinholes are revealed, mix product in small batches as detailed above, and then use a metal trowel to pull the product tightly to the floor and fill voids. Use multiple swipes to fill voids thoroughly. The resulting layer should be an ultra-thin or "haze" coat to allow for easier processing. Resume processing with transitional ceramic tooling once product has hardened (typically 2 - 3 hours at 70°F / 21°C). Repeat at least once for best results; repeat further as needed to achieve desired effect. While appearance and color will vary, gray and white shades may be blended for best color matching.

Pot life (70°F / 21°C): 30 - 40 minutes. Jobsite conditions and temperature may affect pot life. If the material begins to harden within published pot life, retemper with a drill. Do not add more water.

Step 7: Drying and Sealing / Coating

Product must be sealed or coated with a material suitable for the intended operating conditions of the installation environment.

All dry times are calculated at 70°F (21°C). Drying time is a function of jobsite temperature and humidity conditions. Low substrate temperatures and/or high ambient humidity will extend the drying time. Adequate ventilation and heat will aid drying. Forced drying can dry the surface of the product prematurely and is not recommended.

Any coating at a thickness exceeding 20 mils:	3 - 5 days
Solvent-borne or 100% solids coating at a thickness up to 20 mils	24 hours
ARDEX CG or other waterborne sealer at a thickness up to 20 mils	When hardened (Typically 2 - 3 hours)

Step 8: Care and Maintenance of ARDEX Surfaces

Note

Maintaining ARDEX Finished Surfaces and adherence to a strict maintenance schedule will help maximize its performance, appearance and slip resistance and will reduce the absorption of spilled liquids. Sealing the floor permits the floor to retain its aesthetic quality.

Prompt removal of liquids is critical in minimizing slip hazards as well as staining.

Daily Cleaning and Maintenance Procedure

Once fully cured, routinely sweep, dry mop and wash with neutral pH cleaners and water. Spot clean and dry areas of concentrated traffic as needed.

Do not use abrasive brushes or pads as part of a daily maintenance program. The use of mechanical cleaning devices, such as auto scrubbers and swing buffers with non-abrasive 3M Sky Blue maintenance pads, may be employed as needed when a sacrificial wax layer is applied. All mechanical cleaning devices must have the ability to remove all residual ponding water and cleaning agents.

Do not use cleaners that are acidic or contain citrus (d limonene) or butyl compounds. The application of highly acidic cleaners may etch or stain the surface and reduce the floor's ability to resist water penetration. Prior to commencement of any maintenance, on-site test areas of the selected cleaner should be done to ensure compatibility.

Reapplication: For applications where a sacrificial wax layer has not been applied / maintained, it will be necessary to evaluate the sealer periodically to assess its ability to repel staining agents. Reapply as necessary and in accordance with this technical data sheet for optimum performance.

Monthly or Quarterly Maintenance and Cleaning

As part of the maintenance of ARDEX Finished Surfaces, additional steps are required to ensure the aesthetic and performance qualities. Burnishing or micro-polishing with a high-speed burnisher or swing buffer and non-abrasive pad is recommended, as long as the sacrificial wax layer is in place. The use of a diamond impregnated pad (DIP) is not recommended.

High traffic areas may require sealer / coating reapplication in accordance with the technical data sheet. See the "Reapplication of Sealer / Coating" section below.

Semi-Annual or Annual Maintenance and Cleaning

Perform the procedures outlined in the above "Daily Maintenance and Cleaning" section, and then, where desired, burnish or micro-polish with a high-speed burnisher or swing buffer and 3M Sky Blue pad. For additional protection, supplementary coats may be applied as detailed above. See the "Reapplication of Sealer / Coating" section below.

Reapplication of Sealer / Coating

Periodic reapplication of sealer / coating is required to properly maintain ARDEX Finished Surfaces. Ensure that the existing surface is clean and sacrificial wax layer removed, to include the complete, mechanical removal of all bond-inhibiting contaminants.

Important Maintenance Notes

Pads for all mechanical devices should be selected based on the manufacturer's recommendation for each individual equipment piece.

Due to varying traffic frequency, timetables for the above procedures must be adjusted to fit the needs of the space.

Heavy traffic areas may require more frequent application of the above recommendations.

General Guidelines

Protecting the Floor from Construction Trades and Move-In

Please note that the installation of an ARDEX finished surface should be the last step in the construction process. Other trades should not be working in or around an ARDEX installation without proper protection of the ARDEX finished surface. Once the floor has fully cured, the newly installed ARDEX finished surface should be protected from spills, dirt and debris with a temporary, breathable floor protection, such as roll-out fiber board.

Additionally, if the floor will receive excessive traffic during move-in, protection from rolling carts, dollies, racks, gondolas, register wraps, etc. must be planned and implemented. Protection may include temporary "roving plywood" to prevent gouging and indentation of the completed floor installation. Where "roving plywood" is used, it should be removed daily.

Tape

Do not use tape (duct, masking, painters, blue, etc.) in direct contact with ARDEX floors, as it can damage the sealed surface upon removal. Spot taping overlapped breathable floor protection, such as roll-out fiber board, to itself is suitable for this temporary application.

Chair Pads

To avoid marring of the ARDEX finished surface, use felt pads on all chairs and furniture that will come into contact with the floor.

Walk-Off Mats

As with any floor covering, the use of a comprehensive walk-off mat system is highly recommended. A walk-off mat system will control most of the dirt and debris that would otherwise be tracked inside. A suitable walk-off mat system will have sufficient texture to remove dirt from foot and rubber wheeled traffic.

Moving Furniture and Equipment

As with any finished floor surface, dragging or sliding equipment or furniture may damage the surface. Where furniture or equipment cannot be lifted and carried or where felt furniture sliders or pads will not be used, a temporary, breathable floor protection, such as roll-out fiber board, must be placed over the floor. Rubber-wheeled carts or dollies may also be used.

Miscellaneous

Use a plate or other moisture-catching foundation beneath potted plants. Use a breathable pad underneath the plate to prevent trapped moisture from damaging the finish.

After the application has fully cured, use smooth-sided plastic mats below office chairs or other recurring, wheeled traffic. The constant abrasion of the wheels will scrape and damage the surface over time.

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: www.ardexamericas.com.

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 sealer / coating. As finish materials vary, always contact and rely upon the sealer / coating manufacturer for specific directives, such as maximum allowable moisture content and intended end use of the product. If the installation is not proceeding as expected, contact the ARDEX Technical Service Department before proceeding further.

Never mix with cement or additives outside of our written recommendations.

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.

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.

Technical Data According to ARDEX Quality Standards

All data based on a partial, in-lab mix. Testing completed at 70°F / 21°C. Physical properties are typical values and not specifications.

Compressive Strength (ASTM C109/mod – Air cure only):	>5,000 psi (351 kg/cm ²); 28 days
Coverage:	Per bag with 2-coat application: 80 - 100 sq. ft. (7.4 - 9.3 sq. m) Coverage varies with texture of substrate surface.
Drying Time:	See corresponding section above.
VOC:	<1 g/L ASTM D 6886 (calculated)
Packaging:	10 lb. (4.5 kg) bag
Colors:	Gray and White
Storage:	Store in a cool, dry area. Do not leave units exposed to sun. Protect unused material by removing air from bag and sealing tightly.
Shelf Life:	6 months, if unopened and properly stored
Warranty:	ARDEX L.P. Standard Limited Warranty applies. For full warranty details: ardexamericas.com/services/warranties .

Made in the USA.

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www.ardexamericas.com.

Visit www.youtube.com/ARDEX101 to watch ARDEX product demonstration videos. For recommended installation tools, visit DTA USA at www.dtausagroup.com. For easy-to-use ARDEX Product Calculators and Product Information On the Go, download the ARDEX App.



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