ARDEX MRF™

Moisture-Resistant, Rapid-Drying, Skimcoat Patching Underlayment

Provides a smooth surface over a variety of substrates

Engineered to withstand 100% RH; unlimited moisture and water

Interior and exterior use

ARDEX WeatherProof Technology

Suitable for installation at temperatures as low as 40°F (5°C)

Easy to mix with water only; applies to a true featheredge

Install floor coverings in as little as 30 minutes

systemONE™
warranty

ARDEX
WEATHER PROOF
TECHNOLOGY

ARDEX MRF™

Moisture-Resistant, Rapid-Drying, Skimcoat Patching Underlayment

Suitable Substrates

- Concrete (structurally sound)
- Absorbent terrazzo on concrete †
- Plywood subfloors (untreated)
- Solid hardwood †, †††
- Gypsum ††
- Properly installed ARDEX moisture control systems on concrete: ARDEX MC™ RAPID
- Other approved, non-porous materials on concrete:†
  - o Non-porous (non-absorbent) cementitious terrazzo
  - o Ceramic, quarry or porcelain tiles
  - o Epoxy coatings
  - o Epoxy terrazzo
  - o Non-water-soluble adhesive residue
  - o Concrete treated with certain curing compounds (test areas only; for full instructions, see ardexamericas.com/services/properprep)

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

Please note that a skim coat of a cementitious material applied over a non-porous surface may not create a porous bonding surface for the finish flooring and/or may not protect the finish flooring from migration of existing adhesive. Consult the flooring manufacturer for confirmation of any minimum thickness requirements for cementitious underlayments, as well as for any additional considerations, when installing over potentially non-porous surfaces.

††Please be advised that gypsum is inherently weak. This product will provide a solid bonding surface for new flooring, but it cannot correct the weakness of an underlying gypsum surface.

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.

Suitable Applications

- All grade levels
- Interior or exterior; commercial or residential
- Beneath ARDEX moisture control systems (Please contact the ARDEX Technical Service Department for a full recommendation.)

Job Conditions

During installation and cure, substrate and ambient temperatures must be a minimum of 40°F / 5°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. For high-moisture floor coverings and adhesives, this product can be installed over concrete with relative humidity (RH) levels up to 99% provided: Each on-ground slab is built on a vapor retarder, which remains effective and intact, in conformance with ASTM E1745.

All other cases: Moisture control is required if the RH exceeds the most stringent of the following: 1) the limitations imposed by the flooring manufacturer; 2) the limitations imposed by the adhesive manufacturer.

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 82 ™ Ultra Prime
- ARDEX P 4
- ARDEX P 51™ Primer

Substrate (Interior, dry substrates only; All grade levels)	Priming Course
Gypsum and extremely absorbent concrete	ARDEX P 51 "double prime" or ARDEX P 4
Properly installed ARDEX moisture control systems on concrete: ARDEX MC™ RAPID Other approved, non-porous materials on concrete	ARDEX P 82 or ARDEX P 4

Step 2: Substrate Preparation (Proper Prep™)

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

- Article 1.1: Preparing Concrete for ARDEX or HENRY Underlayments
- Article 1: Preparing Concrete for Bonded ARDEX or HENRY Applications
- Article 2: Preparing Wood for Bonded ARDEX Applications

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; unapproved curing compounds and sealers; overwatered or otherwise loose or weak material; and unsuitable adhesive residues.

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

Minimum Preparation

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

Substrate	Minimum Preparation
Non-water-soluble adhesive residue on concrete	Must be scraped to a thin, well-bonded residue (rfci.com)
Substrate to receive ARDEX P 51	Mechanically remove all adhesive residue, sealers, curing compounds, tiles, mortars and epoxy coatings down to clean, sound, solid concrete / terrazzo Substrate must be clean and absorbent (ASTM F3191)
Concrete to receive ARDEX MC RAPID	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)

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 moving joints or moving cracks. Honor all moving joints.

If an ARDEX moisture control system will be installed (see "Moisture Testing" section above): All dormant joints and 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.

Moisture Control System Installation (if required)

If moisture control is required, install the selected ARDEX moisture control system in accordance with the appropriate technical data sheet (www.ardexamericas.com/products).

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

Priming *(if moisture control is not required)*

See the "Priming Method Selection" section above to select the appropriate primer based on the substrate.

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.

Gypsum and Extremely Absorbent Concrete: ARDEX P 51 "Double Prime"

Make an initial application of primer diluted with 3 parts water by volume. Let the initial application dry thoroughly (1 - 3 hours), and then install a second application of primer mixed 1:1 with water as detailed directly above.

Non-Porous Surfaces: ARDEX P 82

To prevent rust from recurring, ferrous metals must first be coated with an anti-corrosive epoxy coating. The coating must be installed and allowed to dry thoroughly in accordance with the manufacturer's written recommendations.

Follow the mixing instructions on the container, and apply with a short-nap or sponge paint roller, leaving a thin coat of primer. Do not leave any bare spots. Back roll with a dry roller to remove excess primer. ARDEX P 82 should be applied within 1 hour of mixing. Allow to dry to a thin, slightly tacky film (min. 3 hours, max. 24 hours).

Various, Approved Substrates: **ARDEX P 4**

Apply a thin, even layer to the substrate using a short-nap roller, sponge paint roller or paintbrush. Allow the primer to dry to a thin, opaque, white film (min. 30 minutes; 70°F / 21°C). Once dry, there is no time limit before the subsequent installation may proceed. However, please note that the subsequent installation should proceed as soon as possible to avoid surface contamination or damage to the primed surface.

Step 5: Mixing and Application

Recommended Tools

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

Water ratio: 1.75 quarts (1.65 L) of clean water per unit; 3.25 parts powder to 1 part clean water by volume

Thickness of Application

Application	Max. Thickness
Small, well-defined areas on concrete	Unlimited
All other applications	1/2" (12 mm)

Manual

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.

Please note that for 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 floor covering.

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.

The pot life of the product is approximately 15 - 20 minutes at 70°F (21°C). If stiffening or surface skinning occurs within this time, remix before using. Do not add more water.

Wear Surface

This product is not to be used as a permanent wear surface, even if coated or sealed. Install a suitable floor covering material, such as carpet, vinyl flooring, ceramic tile, etc. For concrete floors in warehouses, storage areas, hallways or other areas where a wear surface is required, use ARDEX SD-M™ DESIGNER FLOOR FINISH™.

Step 6: Drying Time and Installation of Flooring

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.

Wood flooring and high-performance adhesives (epoxies or urethanes):	16 hours
All other applications:	(When hardened) typically 30 minutes

If the adhesive being used is drying more quickly over the underlayment than over adjacent concrete, prime the underlayment with ARDEX P 51™ PRIMER mixed 1:3 with water. Follow application and curing instructions in the ARDEX P 51 technical data sheet. The use of ARDEX P 51 will even out the open time of the adhesive without affecting flooring bond or long-term performance.

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.

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. 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 mixing ratio of 3.25 parts powder to 1 part clean water by volume. Mixing and testing completed at 70°F / 21°C. Physical properties are typical values and not specifications.

Coverage	Per bag at 1/8" (3 mm): 28 sq. ft. (2.6 sq. m) Per bag at 1/16" (1.5 mm): 56 sq. ft. (5.2 sq. m) Per bag at skim coat: 200 - 250 sq. ft. (18.6 - 23.2 sq. m) Coverage varies with texture of substrate surface.
Drying Time	See the "Drying Time and Installation of Flooring" section above.
VOC:	0
Packaging:	10 lbs (4.5 kg) bag
Storage:	Store in a cool, dry area. Do not leave units exposed to sun.
Shelf Life:	12 months, if unopened and properly stored
Warranty:	ARDEX L.P. Standard Limited Warranty applies. Also eligible for the ARDEX/HENRY SystemOne™ Warranty when used in conjunction with select HENRY® Flooring Adhesives. See ardexamericas.com/services/warranties for full warranty details.

Made in the USA.

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.

Available on the iPhone App Store   ANDROID APP ON Google play   You Tube

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