



ARDEX Watec®

Drainage System

Installation Guide for Balconies, Patios and Other Surfaces Not Over Living Spaces*

Innovative, capillary-passive water management system

For pre-sloped exterior wood or concrete balconies, patios, terraces, etc.

Accommodates most sizes of tile and stone

Ideal for areas with limited construction height

Helps prolong the life of exterior tile and stone applications

Minimizes disbonding risk due to freeze and thaw cycling

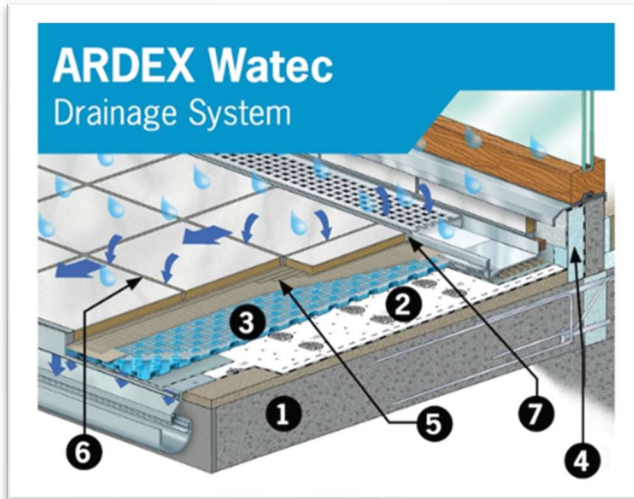
Minimizes the risk of efflorescence, staining and discoloration

*For installations over living spaces, there must be an intact roofing membrane already in place

ARDEX Watec®

Drainage System

System Design



Components Shown

1. 1.5 to 2% sloped Substrate
2. ARDEX SK 175™ Waterproofing and Vapor Retarder Membrane
3. ARDEX UD 150™ Watec® Drainage Mat
4. ARDEX UD 146 Perimeter Edge Strip
5. ARDEX X 90™ OUTDOOR Mortar or ARDEX X 32™ MICROTEC® Mortar
6. ARDEX FL™ Grout
7. ARDEX SX™ 100% Silicone Sealant

Other Components

- Sloping and smoothing materials (as needed)
- Grouts
- Silicone soft joint sealants
- Accessories - see below

Suitable Substrates

Surfaces NOT over living spaces:

- Exterior wood (pre-sloped)
- Exterior concrete

For installations over living spaces, an intact roofing membrane must be already in place.

Job Conditions

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

Step 1: Substrate Preparation (Proper Prep™)

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.

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

All substrates must be sound, solid and thoroughly clean of all existing patching and leveling materials and all bond-breaking contaminants, including but not limited to: overwatered or otherwise loose or weak material; unapproved sealers; all adhesive residues.

Vacuumping

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

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

- Article 1: Preparing Concrete for Bonded ARDEX or HENRY Applications
- Article 2: Preparing Wood for Bonded ARDEX Applications
- Proper Prep Brochure

The plane of wall surfaces must be plumb and true. Floor surfaces must have minimal variation in the plane or slope as outlined by the Tile Council of North America (TCNA). Refer to ANSI A108.01 "General Requirements: Subsurface and Preparation by Other Trades" and the most current version of the TCNA "Handbook for Ceramic Tile Installation" for detailed information on surface preparation and guidelines for substrate construction.

It must be verified that the substrate is sufficiently sound to support the installation weight; verify with a structural engineer as necessary.

Step 2: Pre-Sloping / Smoothing Options (if needed)

ARDEX AM 100™ Rapid Set Pre-Tile Smoothing and Ramping Mortar

ARDEX A 38™ Rapid Set Screed

Substrate must be flat and smooth with a 1.5 - 2% slope prior to installation. Observe the substrate preparation, mixing, application and drying instructions in the appropriate ARDEX technical data sheet. Per ANSI A 108 AN-3.7, expansion joints must be provided over existing moving joints and moving cracks and where substrate materials change composition or direction.

Step 3: Profile and Accessory Installation



Cut and install the appropriate size ProFin® Profile and the inside and outside ProFin® corners on the perimeter of the area of installation. Place galvanized fasteners in every other hole or as necessary to secure the profiles.

Step 4: ARDEX US 420 ProDrain® Tape



Install the ARDEX US 420 ProDrain Tape along the inside edge of the ProFin Profile. Ensure that the tape covers all fasteners. The dotted line on the tape should be in alignment with the inside edge of the ProFin Profile.

Step 5: ARDEX SK 175 Membrane Installation



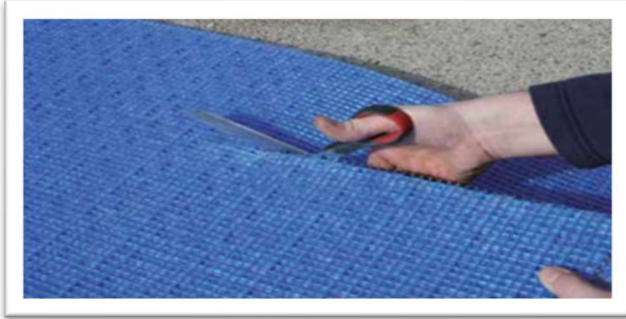
Install ARDEX SK 175™ Membrane as a Vapor Retarder* with an ARDEX Mortar over the sloped substrate and place up to the plastic side of the ARDEX US 420 ProDrain® Tape, covering the fleece. Please refer to the ARDEX SK 175 technical data sheet for application information.

Do not penetrate the membrane, including fixing any posts or railings once the draining system is installed.

* ARDEX SK 175™ is NOT a replacement for waterproofing protection over occupied living spaces. Applications over occupied living spaces require an existing, intact primary roofing membrane prior to the installation of an ARDEX Exterior System. ARDEX SK 175 is to provide protection against vapor transmission from the substrate.

Step 6: Installation of Perimeter Strip

Once the mat is laid, install the self-adhesive ARDEX UD 146® Edge Insulation Strip around the edges of the installation and the ARDEX UG 203 ProDrain® Joint Tape around the drain housing. This allows movement between different materials and ensures the required 3/8" (10 mm) gap around the perimeter. After the tile is set, cut the edge insulation strip to the required height.



Step 7: ARDEX UD 150™ Wattec® Drainage Mat Installation

Place the mat into place and cut to size using ARDEX FLEXBONE® Shears or a utility knife. Ensure that the waterproofing or vapor retarder membrane is not cut.

NOTE: Place the mat with the drainage channels facing the direction of the slope.



Align and join the membrane sheets using the self-adhesive ARDEX UD 158 Seam Reinforcement Mesh Strip.



Spacing between the mat sheets honoring movement and transition joints should be covered with tape to protect against the entry of mortar and grout to the substrate below to avoid bonding the mat to the substrate.

Step 8: Tile / Stone Installation



Mix ARDEX X 90 in accordance with its technical data sheet.



Installation should proceed in accordance with ANSI A 108.5. After mixing, apply the mortar directly over the mat with the flat side of a notched trowel (keying in) to obtain a solid mechanical bond.

Next, comb the mortar on the surface with the notched side of a trowel of sufficient depth to ensure that the tile or stone is covered uniformly over the entire surface. The type and size of the tile or stone will dictate the size of the notched trowel to be used to achieve proper transfer of the mortar and proper coverage. Follow the recommendations of the Tile Council of North America for proper transfer.



Apply ARDEX X 90™ OUTDOOR to the back of the tile or stone using a flat trowel and then install the tile.

Step 9: Finishing with ARDEX Grout and Sealant



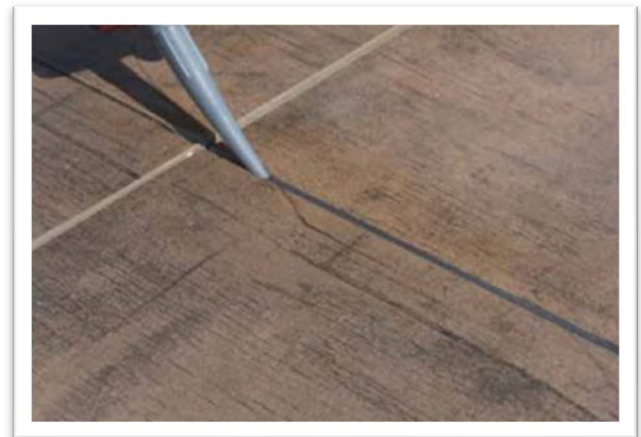
Allow ARDEX X 90 to dry for 2 hours (70°F / 21°C), then clean the grout joints of any excess mortar. Also, clean the tile or stone surface and allow to dry. Once the surface is dry, mix and apply ARDEX FL™ Rapid Set Sanded Grout or ARDEX WA™ Epoxy Grout in accordance with the corresponding technical data sheet, and place into the grout joints.



NOTE: Grouting must NOT be applied around the perimeter edge. All installations must include soft joints using ARDEX SX™ 100% Silicone Sealant in accordance with ANSI A 108.01-3.7 and TCNA EJ 171.

NOTE: Once the ARDEX FL or ARDEX WA grout has dried properly, ARDEX SX™ 100% Silicone Sealant can be used to apply a soft bead of sealant around the perimeter and moving joints.

NOTE: For tile larger than 16" x 16" (40 cm x 40 cm) use ARDEX SX 100% Silicone Sealant in place of grout.



Technical Data According to ARDEX Quality Standards

Storage and Transport:	Store and transport rolls vertically in the original packaging. Store in temperatures from 32°F - 72°F (0°C - 22°C), and protect from sunlight.
Warranty:	Eligible for the ARDEX Exterior Drainage System 5 -Year Limited Warranty. See ardexamericas.com/services/warranties for full warranty details.

Notes

FOR PROFESSIONAL USE ONLY by licensed, bonded 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 tile flooring. As tiles vary, always contact and rely upon the tile manufacturer for specific directives, such as maximum allowable moisture content, mortar selection and intended end use of the product.





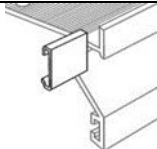
Never mix with cement or additives outside of our written recommendations. Observe the basic rules of concrete work, including the minimum surface and air temperatures detailed above. Install quickly if the substrate is warm, and follow the warm weather installation guidelines available on our website.

Dispose of packaging and residue in accordance with prevailing regulations. Do not flush material down drains. Do not reuse packaging.

Made in the USA and Germany.

Copyright 2021 ARDEX, L.P. All rights reserved. Content updated 2021-10-07. Supersedes all previous versions. Latest version available at ardexamericas.com. For technical updates, visit ardexamericas.com/services/technical-services/techupdates.

System Components and Available Accessories

System	Product	Description	Image	Size
Waterproofing	ARDEX US 420 ProDrain®	Flashing Tape		65.6 ft. (20 m)
Drain	ARDEX UG 203 ProDrain®	Drain Grate Expansion Tape		8.2 ft. (2.5 m)
Profile	ARDEX UP 340-30 ProFin®	Profile Aluminum 30 mm		9.8 ft (3 m)
Profile Corner	ARDEX UP 341-30 ProFin®	90° Outside Corner Aluminum 30 mm		N/A
Profile Corner	ARDEX UP 342-30 ProFin®	90° Inside Corner Aluminum 30 mm		N/A
Profile Clips	ARDEX UP 325 ProFin®	Backsplash Clip - 30mm		N/A
Profile Connectors	ARDEX UP 309 ProFin®	Profile Connectors		N/A

The above components are suggested for standard assembly heights. Additional options are available for systems that require installation heights greater than 1 5/16".

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.



ARDEX Americas
400 Ardex Park Drive
Aliquippa, PA 15001 USA
888-512-7339
www.ardexamericas.com