



ARDEX A 14TM

Drainage Mortar (Cement Binder)

Rapid setting; walkable in 4 hours



Formulated to allow water to easily pass through the mortar

Hydrophobic agents repel water and absorption

Will not contribute to efflorescence

Designed for exterior applications

Part of ARDEX Exterior Tile & Stone Systems; directs water to the ARDEX ProDrain® Drainage Mat

ARDEX A 14™

Drainage Mortar (Cement Binder)

Suitable Substrates

- Concrete (structurally sound)
- Plywood substrates (APA-rated, Type 1 exterior-grade)

Suitable Applications

- Installation of natural stone, ceramic tile, porcelain tile, concrete stone and paver stone
- Patios, decks, pool surrounds, walkways, roof top terraces and exterior balconies

Jobsite Conditions

Do not install below 50°F (10°C) surface and air temperatures. Install quickly if the substrate is warm; contact the ARDEX Technical Service Department for warm weather installation instructions.

Step 1: Substrate Preparation

All substrates must be structurally sound, solid, thoroughly clean and free of oil, wax, grease, asphalt, latex and gypsum compounds, curing compounds, sealers and any contaminant that might act as a bond breaker. Plywood substrates must be APA-rated, Type 1 exterior-grade plywood.

Refer to ANSI A108 AN-2 "General Requirements for Subsurfaces," the Tile Council of North America's "Handbook for Ceramic Tile Installation" and TTMAC for detailed information on surface preparation and guidelines for substrate construction. Floor surfaces must have a minimum slope of 1.5% towards the drain(s).

Mechanical preparation method must comply with OSHA Silica Standard for Construction CFR §1926.1153. After mechanical preparation is completed and prior to priming, ensure that all dust and debris is removed from the substrate by vacuuming thoroughly. The vacuum filter must comply with OSHA Silica Standard for Construction CFR §1926.1153.

Should pre-leveling, substrate repair or sloping be required before installing ARDEX ProDrain over cementitious substrates, use ARDEX AM 100™ Rapid Set Pre-Tile Smoothing and Ramping Mortar.

For full details on substrate preparation, reference the ARDEX Proper Prep™ guidelines at

www.ardexamericas.com:

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

Note on Asbestos-Containing Materials

Please note that when removing existing flooring, any asbestos-containing materials should be handled and disposed of in accordance with applicable federal, state and local regulations.

Step 2: Treating Joints and Cracks

Under no circumstances should ARDEX A 14 be installed over any joints or moving cracks. All existing expansion joints, isolation joints, construction joints and control joints, as well as all moving cracks, must be honored up through the ARDEX A 14 and the tile in accordance with ANSI A108 AN-3.7.

Recommended Tools and Accessories

Forced action mixer (such as pan, trough or paddle mixer) or screed pump.

Aggregate Selection

The gravel should be reasonably dry, should be ASTM #9 sub-angular 1/8" - 3/8" (2 - 10 mm) granite basalt or quartz gravel and should not contain lime, calcium or other materials that could be detrimental to the workability of the drainage mortar during application or to the performance of the set and hardened mortar. Do not use other cements or screed additives in the mix.

Step 3: Mixing and Application

We recommend mixing the ARDEX A 14 cement binder and aggregate using a standard forced action mixer, free-fall mixer or screed pump. Use clean equipment. If desired, ARDEX A 14 can be mixed by hand using a shovel or hoe. The mixing ratio of 1:5 parts by weight depends on the mixer being used:

- For a 26-gallon (100 L) mixer, mix one bag of ARDEX A 14 with 250 lb. (113 kg) of aggregate until well-blended, then add 6 - 10 quarts (5.5 - 9.5 L) of water, depending on aggregate moisture.
- For a 52-gallon (200 L) mixer, mix two bags of ARDEX A 14 with 500 lb. (226 kg) of aggregate until well-blended, then add 12 - 20 quarts (12 - 19 L) of water, depending on aggregate moisture. Do not exceed 22 gallons (21 L) of water.
- If mixing by hand with a shovel or hoe, mix one bag of ARDEX A 14 with 250 lb. (113 kg) of aggregate until well-blended, then add 6 - 10 quarts (5.5 - 9.5 L) of water, depending on aggregate moisture.

Please note that the mixer must not be filled above the manufacturer's recommended volume, typically 3/4 the total volume. Mix the dry mortar with clean water in a continuous, free-fall or forced-action mixer to a damp sand consistency: A ball formed from the bedding mortar should not fall apart, and a slight sheen should appear on the surface.

The working time of the ARDEX A 14 drainage mortar is approximately 1 hour at 70°F (21°C), or 30 - 40 minutes if screed pumps are used. Mix an appropriate amount of material so that mixing, placing, compaction and finish troweling can be completed within this working time. The pot life of ARDEX A 14 is approximately 60 minutes at 70°F (21°C).

Safety and OSHA Compliance

Handle each bag carefully to avoid creating dust. ARDEX recommends the use of ARDEX DUSTFREE™ tools or a standard vacuum attachment with a HEPA dust extraction vacuum system.

Step 4: Optional Waterproofing Membrane

Install ARDEX TLT™ Waterproofing Membrane and Vapor Retarder for Tile & Stone Installations in accordance with the technical data sheet. Lay a loose polyethylene or plastic sheet (min. 4 mils) over the ARDEX TLT prior to installing ARDEX ProDrain Drainage Mat in accordance with the installation brochure, then mix and install ARDEX A 14 in accordance with the wet in wet application or standard thin set application instructions detailed below.

Wet in Wet Application

Mix and install ARDEX A 14 as detailed above at a minimum thickness of 2" (50 mm) up to any thickness. Once the ARDEX A 14 is placed, use minimum 1/4" x 1/4" square notch trowel to apply a layer of ARDEX X 90 OUTDOOR™ MicroteC3 Rapid-Set, Flexible Tile and Stone Mortar to the back of the tile or stone, then immediately lay the tile or stone into the wet ARDEX A 14 layer. Using a non-marring rubber mallet, tap the tile or stone into place until the desired position is achieved.

Standard Thin Set Application

Mix and install ARDEX A 14 as detailed above at a minimum thickness of 2" (50 mm) up to any thickness. When installing the tile or stone utilizing the thin set application, allow the ARDEX A 14 to dry for 24 hours (70°F / 21°C). Once the ARDEX A 14 is dry, apply a layer of ARDEX X 90 to the back of the tile or stone using a minimum 1/2" x 1/2" square notch trowel, then place the tile or stone onto the dry ARDEX A 14 layer.

Note: Once the ARDEX A 14 has dried for 4 hours (70°F / 21°C), it must be protected from construction trade traffic by a suitable protection system (e.g. plywood, Masonite or similar) until tile and stone is installed. Please note that ARDEX A 14 must not be exposed to heavy traffic until the tile or stone is set and dry.

Notes

Intended for use by professional contractors trained in the application of this product and/or similar products. Not sold by ARDEX through home improvement centers.

Always install an adequate number of properly located test areas, including the tile or stone, to determine the suitability of the products for the intended use. As tile and stone materials vary, always contact and rely upon the tile or stone manufacturer for specific directives regarding the intended end use of the product.

Never mix with cement or additives. Observe the basic rules of concrete work.

Dispose of packaging and residue in accordance with applicable 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

Technical Data According to Manufacturer Quality Standards

All data based on a mixing ratio of (1) 50 lb. (22.7 kg) bag ARDEX A 14, 250 lb. (113 kg) gravel and 6 quarts (5.5 L) water at 70°F (21°C). Physical properties are typical values and not specifications.

Mixing Ratio:	Approximately 250 lb. (113.4 kg) of gravel and approximately 6 - 10 quarts (5.5 - 9.5 L) of water per 50 lb. (22.7 kg) bag
Coverage:	18 sq. ft. (1.67 sq. m) per 50 lb. (22.7 kg) bag at a thickness of 2" (5 cm) Dependent on surface profile, density and porosity.
Compressive Strength (ASTM C109/mod - Air cure only):	2,500 psi (176 kg/cm ²) at 28 days
Flexural Strength (ASTM C348):	365 psi (25.6 kg/cm ²) at 28 days
Working Time:	Approximately 60 minutes 30 - 40 minutes when mixed with a screed pump
Pot Life:	60 minutes
Drying Time:	Tile or stone can be placed immediately for wet in wet applications 24 hours for standard thin set applications
Walkable:	4 hours
Packaging:	50 lb. (22.7 kg) bag
Storage:	Store at temperatures between 40 and 90°F (5 - 32°C). Do not freeze or expose to direct sun. Protect unused material by removing air from the bag and sealing tightly; open and reseal as necessary.
Shelf Life:	1 year
Warranty:	ARDEX Standard Limited Warranty applies. Also eligible for the ARDEX SystemOne™ Limited Warranty when used in conjunction with select ARDEX mortars and grouts.

Made in the USA.

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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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