



ARDEX X 32™ MICROTEC®



Universal Rapid Setting and Drying Thin-to-Thick Bed Mortar

*The fast track, interior or exterior, thin-to-thick bed solution
for every natural stone installation.*

Fast setting – walk on and grout in 3 hours

**Use as a thin, medium or thick bed mortar,
up to 1 1/4" (31.8 mm)**

**Ideal for use with moisture-sensitive stone, virtually
eliminates staining, warping and discoloration**

**Water repellent; for fast track swimming pool
and wet area applications**

**The ultimate mortar for interior and exterior
ungauged stone applications**

Ideal for use with heavy and large format tiles

**Excellent sag resistance for walls and slump
resistance for floors**

Easy to mix and apply; mixes using just water

**Ideal for rapid pre-smoothing of floors
and walls prior to tiling**



SystemOne™

Single Source Comprehensive Warranty

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Universal Rapid Setting and Drying Thin-to-Thick Bed Mortar

Description and Usage

A rapid-setting, Portland cement-based, polymer-modified mortar with MICROTEC® and self-drying technologies, ARDEX X 32™ MICROTEC® Universal Rapid Setting and Drying Thin-to-Thick Bed Mortar is ideal for moisture-sensitive natural stone, marble and granite installations. It will not contribute to staining, discoloration or warping of natural stone tiles. ARDEX X 32 can be used as a thin to thick bed up to 1 1/4" (31.8 mm) thick and is excellent for use with agglomerate and ungauged stones that require various mortar depths.

Even at a 1 1/4" (31.8 mm) thickness, ARDEX X 32 is ready for grout in just 3 hours, making it ideal for same day interior or exterior fast track installations. ARDEX X 32 can be used over exterior concrete and masonry surfaces and over common interior substrates, including concrete, masonry and exterior-grade plywood.

Substrate Preparation

ARDEX X 32 adheres to both dry and damp substrates (no standing water) that are structurally sound, solid and free from oil, grease, wax, dirt, asphalt, curing compounds, sealers, releasing agents, gypsum patching compounds, dust, latex, paint and any contaminant that can act as a bond breaker. Plywood substrates must be dry, APA-rated, Type 1 exterior-grade plywood. Wallboards must be dry, sound and solidly anchored to structural components in the wall. The plane of wall surfaces must be plumb and true. Refer to ANSI A108.01 "General Requirements: Subsurface and Preparation by Other Trades" and the most current version of the Tile Council of North America's "Handbook for Ceramic Tile Installation" for detailed information on surface preparation and guidelines for substrate construction. Floor surfaces must have minimal variation in the plane or slope as outlined by the Tile Council of North America.

Pre-Leveling or Subfloor Repair

Other Options: Other options for pre-leveling or subfloor repair include ARDEX AM 100™ Rapid Set Pre-Tile Smoothing and Ramping Mortar; ARDEX A 38™ Rapid Set Screed; or ARDEX A 38™ MIX Rapid Set, Premixed Screed for exterior or interior use; or ARDEX Liquid BackerBoard® Self-Leveling Underlayment for Interior Wood and Concrete Subfloors; ARDEX TL 1000™ Tile Leveler, Self-Leveling Underlayment; or ARDEX TL PATCH® Tile Leveler, Underlayment Patch and Skimcoat for interior use, as appropriate. Observe the instructions and dry times in the ARDEX technical data sheets.

ARDEX X 32: ARDEX X 32 can be used on exterior or interior surfaces at thicknesses up to 1 1/4" (31.7 mm) before installing tile. Follow the mixing instructions in the Mixing and Application section. If required, the ARDEX

X 32 can be waterproofed with ARDEX 8+9™ Rapid Waterproofing and Crack Isolation Compound once the surface appears dry (approx. 3 hours at 70°F / 21°C).

Install tiles as soon as the ARDEX X 32 can be worked on without damaging the surface (approx. 3 hours at 70°F / 21°C).

Drying time is a function of jobsite temperature and humidity conditions, as well as the installation thickness. Low substrate temperatures and/or high ambient humidity will extend the drying time. Adequate ventilation and heat will aid drying.

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.

Priming / Treating the Substrate

Highly absorbent substrates, such as plaster, existing tiles and certain non-porous substrates must be primed or treated as detailed below before proceeding with the tile installation.

Highly Absorbent Substrates

Scratch Coat: Apply a scratch coat of ARDEX X 32. Allow the scratch coat to cure 3 hours before proceeding with the tile installation.

Prime (interior, dry applications only): Prime with ARDEX P 51™ Primer diluted 1:3 with water, and allow this course to dry thoroughly (min. 3 hours, max. 24 hours) before proceeding with the tile installation.

ARDEX 8+9: Apply a coat of ARDEX 8+9, which must dry 1 - 2 hours before proceeding with the tile installation.

ARDEX E 90 (interior, dry applications only): Mix ARDEX X 32 with ARDEX E 90™ Mortar Admix in accordance with the technical data sheet, and install directly over the existing non-porous surface.

Metal, Glass and Certain Other Non-Porous Surfaces

ARDEX 8+9: Apply a coat of ARDEX 8+9, which must dry 1 - 2 hours before proceeding with the tile installation.

ARDEX E 90 (interior, dry applications only): Mix ARDEX X 32 with ARDEX E 90 in accordance with the technical data sheet, and install directly over the existing non-porous surface.

For more information, refer to the ARDEX Substrate Preparation Brochure at www.ardexamericas.com.

Recommended Tools

Margin trowel, mixing container, ARDEX T-2 Ring Mixing Paddle, 1/2" (12 mm) heavy-duty drill (min. 650 rpm) and appropriate notched trowel.

Mixing and Application

For one 40 lb. (18 kg) bag of ARDEX X 32, use 5 3/4 - 6 1/2 quarts (5.5 - 6.1 L) of clean water. To mix smaller quantities by hand, use 3.25 parts powder to 1 part water by volume.

Pour water in the mixing container first, and then add the ARDEX X 32 while mixing for 2 to 3 minutes. For best results, mix with an ARDEX T-2 Ring Mixing Paddle and 1/2" heavy-duty drill (12 mm, min. 650 rpm). If mixing 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.

For improved adhesion, flexibility, strength and water repellence in specialized installations, add ARDEX E 90 in accordance with the instructions in the ARDEX E 90 technical data sheet, and then follow the mixing instructions above.

The pot life of ARDEX X 32 is approximately 1 hour at 70°F (21°C). Jobsite conditions and temperature may affect pot life. If the material begins to harden within this time, remix with a drill and mixing paddle.

DO NOT ADD MORE WATER!

Installation should proceed in accordance with ANSI A 108.5. After mixing, apply the mortar to the substrate 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 of ARDEX X 32 from the substrate to the tile or stone.

Apply to an area no greater than that which can be covered with tiles while the mortar remains plastic (approx. 20 minutes). Do not set tile or stone into skinned over mortar. The position of the tile or stone may be adjusted for up to 20 - 30 minutes after installation.

Grouting

Tiles can be grouted after 3 hours in accordance with ANSI A 108.10. For moisture-sensitive tiles, use ARDEX WA™ High Performance, 100% Solids Epoxy Grout and Adhesive. For non-moisture-sensitive tiles, use ARDEX FL™ Rapid Set, Flexible, Sanded Grout, ARDEX FH™ Sanded Floor and Wall Grout, ARDEX FG-C™ Unsanded Floor and Wall Grout or ARDEX WA, as appropriate. For soft joints, ARDEX recommends ARDEX SX™ 100% Silicone Sealant for Tile and Stone Applications.

Notes

FOR PROFESSIONAL USE ONLY.

When setting certain types of tile or stone, it may be necessary to trowel a layer of mortar on the back of each tile or stone prior to placement on the combed mortar bed in order to achieve the required mortar-to-tile contact. Press each tile firmly into the freshly combed mortar to ensure maximum mortar contact with the tiles.

For cases requiring waterproofing, please refer to the ARDEX 8+9™ Rapid Waterproofing and Crack Isolation Compound technical data sheet and the ARDEX 8+9 "5" Step Application Guide."

For setting glass tiles in swimming pools and other submerged areas, use ARDEX WA. For setting glass tiles at the water line of a swimming pool, use either ARDEX WA or ARDEX X 77™ MICROTEC® Fiber Reinforced Tile and Stone Mortar White mixed with ARDEX E 90. For setting glass tiles in non-submerged applications, use ARDEX X 77 for interior or exterior applications or use ARDEX S 48™ Rapid-Set Tile and Stone Mortar / Mastic Hybrid for interior applications only.

For setting tiles other than glass tiles in swimming pools and other submerged areas, use ARDEX X 77 or ARDEX WA.

Balconies, terraces and building facades experience a great deal of movement due to temperature changes. For the best resistance to this movement, use ARDEX X 77 for vertical or horizontal applications or ARDEX X 78™ MICROTEC® Semi-Pourable Mortar or ARDEX FB 9 L™ Pourable ShearFlex® Mortar for horizontal applications.

Please contact the ARDEX Technical Service Department before proceeding with any of the above demanding applications.

ARDEX X 32 is intended for use at material and surface temperatures between 50° and 85° F (10° to 29° C). Do not install below 50°F (10°C) surface and air temperatures. For warm weather installation instructions, please contact the ARDEX Technical Service Department.

Never mix with cement or additives other than ARDEX-approved products. Observe the basic rules of tile work.

ARDEX recommends the installation of test areas to confirm the suitability of the product for its intended use.

Dispose of packaging and residue in accordance with federal, state and local waste disposal regulations. Do not flush material down drains.

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 water by volume at 70°F (21°C). Physical properties are typical values and not specifications.

Mixing Ratio: 5 3/4 - 6 1/2 quarts (5.5 - 6.1 L) of water per 40 lb. (18 kg) bag

For smaller batches, use 3.25 parts powder to 1 part water by volume bag.

Approximate Coverage per 40 lb. (18 kg) bag:

1/4" x 1/4" x 1/4"
Sq. Notch Trowel
80 sq. ft. (7.4 sq. m)

1/4" x 3/8" x 1/4"
Sq. Notch Trowel
60 sq. ft. (5.5 sq. m)

1/2" x 1/2" x 1/2"
Sq. Notch Trowel
40 sq. ft. (3.7 sq. m)

Open Time: Up to 20 minutes

Pot Life: Approx. 1 hour

Adjustment Time: Approx. 20 - 30 minutes

Time to Grout: 3 hours

Colors: Gray, White

VOC: 0

Packaging: 40 lb. (18 kg) bag

Storage: Store in a cool, dry area. Do not leave bags exposed to sun.

Shelf Life: 1 year, if unopened.

Warranty: ARDEX Engineered Cements Standard Limited Warranty applies. Also eligible for the ARDEX SystemOne™ Warranty when used in conjunction with ARDEX grouts and ARDEX caulks.

Made in the USA.

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ISO 13007 Classification	Classification Requirement
C2 (cementitious, improved adhesion)	≥ 145 psi (1 MPa / 10.2 kg/cm ²) after standard aging, heat aging, water immersion and freeze/thaw cycles
T (vertical slip resistance)	≤ 0.019" (0.5 mm)
E (extended open time)	≥ 72.5 psi (0.5 MPa / 5 kg/cm ²) after 20 - 30 minutes
F (fast setting)	≥ 72.5 psi (0.5 MPa / 5 kg/cm ²) at 6 hours
S1 (deformation)	Deform ≥ 0.1" (2.5mm) but < 0.2" (5mm)

28-Day Test	Test Method	ANSI Specification	Test Results
Impervious ceramic (porcelain) mosaics shear strength	ANSI A118.4	>200 psi (1,38 MPa / 14 kg/cm ²)	300 psi (2.07 MPa / 21.0 kg/cm ²)
Glazed wall tile shear strength	ANSI A118.4	>300 psi (2,07 MPa / 21 kg/cm ²)	500 psi (3.45 MPa / 35.0 kg/cm ²)
Quarry tile to plywood shear strength	ANSI A118.11	>150 psi (1,04 MPa / 10,6 kg/cm ²)	250 psi (1.73 MPa / 17.5 kg/cm ²)

Suitable uses for ARDEX X 32

Substrates	Interior or Exterior	Tile Type
Concrete, masonry	Interior or exterior	All types
Plywood	Interior	All types
Submerged areas	Interior or exterior	All types except glass

28-Day Test	Test Method	ANSI Specification	Test Results
Impervious ceramic (porcelain) mosaics shear strength	ANSI A 118.15 F	≥50 psi (0.35 MPa / 3.5 kg/cm ²)	Pass
Impervious ceramic (porcelain) mosaics shear strength	ANSI A 118.15	>400 psi (2.76 MPa / 28 kg/cm ²)	651 psi (4.49 MPa / 45.8 kg/cm ²)
Impervious ceramic (porcelain) mosaics shear strength with freeze-thaw cycling	ANSI A 118.15	>250 psi (1.73 MPa / 17.5 kg/cm ²)	644 psi (4.44 MPa / 45.3 kg/cm ²)
Impervious ceramic (porcelain) mosaics with heat aging	ANSI A 118.15	>400 psi (2.76 MPa / 28 kg/cm ²)	425 psi (2.93 MPa / 29.9 kg/cm ²)
Glazed wall tile shear strength	ANSI A 118.15	>450 psi (3.11 MPa / 31.5 kg/cm ²)	653 psi (4.5 MPa / 45.9 kg/cm ²)
Quarry tile shear strength	ANSI A 118.15	>150 psi (1 MPa / 10.5 kg/cm ²)	226 psi (1.56 MPa / 15.9 kg/cm ²)
Quarry tile to plywood shear strength	ANSI A 118.11	>150 psi (1 MPa / 10.5 kg/cm ²)	250 psi (1.72 MPa / 17.6 kg/cm ²)
7-Day Test	Test Method	ANSI Specification	Test Results
Impervious ceramic (porcelain) mosaics shear strength with water immersion	ANSI A 118.15	>200 psi (1.38 MPa / 14 kg/cm ²)	509 psi (3.51 MPa / 35.8 kg/cm ²)

Visit www.youtube.com/ARDEX101 to watch ARDEX Americas product videos.

For easy-to-use ARDEX Product Calculators and Product Information On the Go, download the ARDEX App at the iTunes Store or Google Play.



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