



ARDEX D 16™

Type 1 & 2 Premixed Tile Adhesive

Use for setting quarry, ceramic, mosaic and moisture-insensitive stone tile

Sets porcelain tile over absorbent surfaces

Use for interior walls, floors and countertops

Use to install tile in tub surround applications

Freeze-thaw stable*

Easy to use and apply

Low odor / low VOCs

Good sag resistance; hangs up to 12" x 12" tile

White, ready-to-use mastic



ARDEX D 16

Type 1 & 2 Premixed Tile Adhesive

Suitable Substrates

- Concrete
- Concrete block
- Drywall
- Plaster
- Brick

Jobsite Conditions

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

Step 1: Substrate Preparation (Proper Prep™)

All surfaces must be structurally sound, solid and free from any contaminant that can act as a bond breaker, including excessive moisture and/or alkali. Remove dirt, wax, loose paint and all foreign matter that would interfere with a good bond, such as curing agents and sealers.

Glossy painted surfaces and glazed ceramic tile must be abraded.

Refer to ANSI A 108 AN-2 "General Requirements for Subsurfaces" and the Tile Council of North America's "Handbook for Ceramic Tile Installation" for detailed information on surface preparation and guidelines for substrate construction. The plane of wall surfaces must be plumb and true. Floor surfaces must have minimal variation in plane or slope.

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 1.1: Preparing Concrete for ARDEX or HENRY Underlayments

Suitable Applications

- Interior walls, floors and countertops
- Tub surrounds and other intermittent wet areas, as well as dry areas
- Setting quarry, ceramic, mosaic and moisture-insensitive stone tile
- Setting porcelain tile over absorbent interior surfaces
- For highly absorbent tile and for resin-backed tile and stone: Contact the ARDEX Technical Service Department before proceeding further
- Not for lug-back ceramic tile or pre-grouted wall tile sheets
- Not for use over mortar beds, in gang showers, or over walls made of plywood or particleboard
- Meets or exceeds ANSI A 136.1 Type 1 and 2.

Step 2: Pre-Leveling / Smoothing Options

Should pre-leveling be required, use one of the following, as appropriate for the substrate:

Product	Substrate
ARDEX AM 100™ Rapid Set Pre-Tile Smoothing and Ramping Mortar	Concrete
ARDEX Liquid BackerBoard® Self-Leveling Underlayment for Interior Wood and Concrete Subfloors	Concrete, wood
ARDEX TL 1000™ Self-Leveling Underlayment	Concrete
ARDEX cementitious patching compounds	Concrete (all), wood (select patching compounds, see technical data sheet for verification)

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: Waterproofing / Crack Isolation / Uncoupling; Priming / Treating Certain Substrates

Waterproofing / Crack Isolation Options

- ARDEX 8+9™ Rapid Waterproofing and Crack Isolation Compound
- ARDEX S 1-K™ One-Component Waterproofing and Crack Isolation Membrane
- ARDEX TLT™ Waterproofing Membrane and Vapor Retarder for Tile & Stone Installations

Follow the instructions in the respective technical data sheet.

Gypsum Underlayments

Option 1: Apply a coat of ARDEX P 4™ Pre-Mixed, Rapid-Drying, Multipurpose Primer, which must dry 30 - 60 minutes before proceeding with the tile installation.

Option 2: ARDEX P 51 Double prime. Follow the instructions in the respective technical data sheet.

Drywall

Prime with a PVA primer prior to installation, following manufacturer instructions for application, curing, etc.

Other Highly Absorbent Substrates (plaster, etc.)

Option 1: Apply a coat of ARDEX P 4™ Pre-Mixed, Rapid-Drying, Multipurpose Primer, which must dry 30 - 60 minutes before proceeding with the tile installation.

Option 2 (Dry areas only; Interior applications only): ARDEX P 51 Double prime. Follow the instructions in the respective technical data sheet.

Step 4: Application

Open Time: None – sets tile immediately.

Adjustment Time: Approximately 60 minutes.

Stir any liquid that may have pooled on the surface into the adhesive. Select the proper trowel notch based on the tile being installed. Spread the adhesive fully and evenly with the flat side of a trowel to obtain a good mechanical bond. Do not leave any bare spots. Comb back through the adhesive with the notched side of the trowel.

Apply to an area no greater than can be covered with tile while the adhesive remains plastic (approximately 1-hour open time, depending on substrate and jobsite conditions). Install tile immediately. Do not spread more adhesive than can easily be covered in 60 minutes. Do not allow the adhesive to skin over.

Most wall tiles up to 12" x 12" can be installed without slipping. Quarry tiles over 8" x 8", and very heavy tiles, may slip slightly while being installed. The maximum size of floor tile is 6" x 6".

Firmly press the tile into the adhesive to obtain maximum contact between the back of the tile and the adhesive. Remove any adhesive residue from the face of the tiles and the joints immediately after setting the tile.

Comb the adhesive with a notched 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.

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

Installation should proceed in accordance with ANSI A 108.5. High temperatures will shorten the working and drying times; low temperatures will extend these times. Use ARDEX D 16 only when the substrate and ambient temperatures are over 50°F (10°C).

Maximum notch trowel Size

1/4" x 1/4" (6 mm x 6 mm)

Grouting

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.

Location	Cure time prior to grouting
Floor tile	48 hours
Wall tile	24 hours

ARDEX recommends the use of ARDEX DG 1™ One-Component Grout, 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™ Epoxy Grout and Adhesive, as appropriate in accordance with the technical data sheet and ANSI A 108.10.

Notes

Use ARDEX X 77™ Fiber Reinforced Tile and Stone Mortar to set non-porous tile on non-porous substrates and in wet areas requiring a waterproofing membrane.

For setting moisture-sensitive stones on interior applications, use ARDEX N 23™ Rapid Set Natural Stone and Tile Mortar or ARDEX S 28™ Rapid-Set, Rapid-Dry, Super-Format Tile and Uncoupling Membrane Mortar.

For setting and grouting tiles in high stress areas, hot tubs and water-holding tanks, use ARDEX WA™ Epoxy Grout and Adhesive.

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.

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

Never mix with cement or additives outside of ARDEX written recommendations. Observe the basic rules of tile work.

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.

ARDEX Tile and Stone Mortar Usage Guide

Moisture-sensitive natural stone or agglomerate tile (interior, dry applications only): ARDEX X 32™ Universal Rapid Setting and Drying Thin-to-Thick Bed Mortar; ARDEX S 28™ Rapid-Set, Rapid-Dry, Super-Format Tile and Uncoupling Membrane Mortar; ARDEX N 23™ Rapid Set Natural Stone and Tile Mortar.

Saltwater pools; glass tiles in swimming pools and other submerged areas: ARDEX 100% Solids Epoxy Adhesive.

Glass tiles in non-submerged areas: ARDEX X 77™ Fiber Reinforced Tile and Stone Mortar; ARDEX X 65 Lightweight Universal Tile and Stone Mortar.

Balconies, terraces and building facades that experience a great deal of movement due to temperature changes: ARDEX X 90 OUTDOOR™ Rapid-Set, Flexible Tile and Stone Mortar; ARDEX X 77™ Fiber Reinforced Tile and Stone Mortar.

Technical Data According to Manufacturer Quality Standards

Physical properties are typical values and not specifications. All data based on surface and air temperatures at 70°F / 21°C.

Property	Value
Coverage (dependent on surface profile and porosity)	175 sq. ft. per pail (3.5 gal.) using a 5/32" V-notch trowel 105 sq. ft. per pail (3.5 gal.) using a 1/4" x 1/4" x 1/4" square notch trowel
Packaging	3.5 gallon pail / 1 gallon tub
Storage	Store in a cool, dry area. Do not expose container to sun. Freeze-thaw stable to 10°F / -12°C. Avoid lower temperatures and multiple freeze-thaw cycles.
Shelf Life	One year
Warranty	ARDEX Standard Limited Warranty applies. Also eligible for ARDEX Tile and Stone SystemOne™ Warranty when used as a system. For full warranty details: ardexamericas.com/services/warranties

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.

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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.



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