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# 100% SOLIDS EPOXY ADHESIVE

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Use for installing all types of tile including glass tile, moisture sensitive marble and agglomerate tiles and resin-backed tile, mosaics and stone

Non-staining on white and light-colored marble

Use where maximum chemical resistance is required

Use for applications in food processing, industrial, institutional and commercial facilities

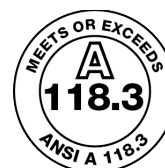
Ideal for swimming pools, hot tubs and other wet areas, can be submerged after only 7 days

Very easy to clean with only water

High bond strength

Solvent free, low VOCs

Available in white only



**systemONE**<sup>™</sup>  
warranty

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# 100% SOLIDS EPOXY ADHESIVE

## Description and Usage

ARDEX 100% Solids Epoxy Adhesive is a solvent-free, two-component epoxy adhesive. This adhesive is suited particularly for tile installations in industrial areas, swimming pools, hot tubs, showers, bathrooms, dairies, meat packing facilities, breweries, hospitals and any installation requiring high standards of hygiene and chemical resistance.

## Suitable Substrates include:

- Concrete
- Ceramic and Porcelain Tile & Stones
- Exterior Glue Plywood\*
- Concrete Masonry
- Brick Masonry
- Non-Water-Soluble Cut-Back Adhesive\*
- Cement Mortar Beds
- Gypsum Wallboard\*
- Cement Plaster
- Cementitious Terrazzo
- Cement Backer Board\*\*
- Steel
- Fiberglass
- ARDEX TLT™ Building Panels
- Most glass tiles\*\*\*

\*Interior application only

\*\*Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use.

\*\*\*Contact ARDEX Technical Service Department for a full recommendation

## Substrate Preparation

(For use as a setting adhesive)

ARDEX 100% Solids Epoxy Adhesive adheres to all dry, common, interior or exterior building substrates that are structurally sound, solid and free from any contaminant that can act as a bond breaker. Refer to ANSI A 108 .01 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. Wallboards must be dry, sound and solidly anchored to structural components in the wall. 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.

Should pre-leveling or subfloor repair be required, choose from the products below, as appropriate. Observe the instructions and dry times in the respective ARDEX technical data sheets.

**Interior or Exterior:** ARDEX AM 100™ Pre-Tile Ramping and Smoothing Mortar, ARDEX A 38 MIX™ Rapid Set, Premixed Screed or ARDEX A 38™ Rapid Set Screed.

**Interior only:** ARDEX Liquid BackerBoard® Self-Leveling Underlayment for Interior Wood and Concrete Subfloors, ARDEX TL 1000™ Self-Leveling Underlayment, ARDEX TL 1400™

Self-Leveling Underlayment, ARDEX TL 2000™ Fiber Reinforced, Self-Leveling Underlayment or ARDEX SKM™ Skimcoat Patch and Finishing Underlayment. Observe the instructions and dry times in the ARDEX technical data sheets.

## Recommended Tools

Appropriate notched trowel ARDEX T-2 Ring Mixing Paddle, low-speed drill, ARDEX sponge (or similar) and a white Scotch-Brite® pad or similar.

## Mixing and Application

Each tub of ARDEX 100% Solids Epoxy Adhesive contains the properly proportioned amounts of the resin, "Part A", and the hardener, "Part B." Extra room is provided in the larger "A" container to accommodate the "B."

As with all epoxies, full mixing of all material is critical to product performance. Add the "B" to the "A," using a spatula or similar scraping tool to ensure all hardener is removed from the hardener container. Mix with a low-speed drill and an ARDEX T-2 Ring Mixing Paddle.

It is recommended that this epoxy adhesive be spread out immediately after mixing, as self-heating in the container will reduce the working time.

The working time of this epoxy adhesive is approximately 1 hour at 70°F (21°C). Note that, as is the case with all reactive materials, elevated temperatures will drastically reduce the pot life and working time of the epoxy.

Installation should proceed in accordance with ANSI A 108.6. After mixing, apply the epoxy to the substrate with the flat side of a trowel to obtain a solid mechanical bond. Next comb the epoxy 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 epoxy and proper coverage. Follow the recommendations of the Tile Council of North America for proper transfer of ARDEX 100% Solids Epoxy Adhesive from the substrate to the tile or stone.

Apply to an area no greater than that which can be covered with tile while the epoxy remains plastic (approx. 1 hour, depending on jobsite conditions). Do not set tile into epoxy that has started to set. The position of the tile may be adjusted for up to approximately 1 hour after installation.

**Note:** Temperature will affect working properties of ARDEX 100% Epoxy Adhesive. Warm temperatures will speed curing and shorten working time. Cool temperatures will slow curing time and require longer time to traffic. Store ARDEX 100% Epoxy Adhesive at 70°F (21°C) for 24 hours prior to use.

Tiles can be grouted after 12 hours.

## Notes

FOR PROFESSIONAL USE ONLY.

Not for use as a grout. Use ARDEX DG 1™, ARDEX FL™, ARDEX FG-C™, ARDEX FH™ or ARDEX WA™.

Not for use as a wear surface.

Adhesives for tile and stone are not replacements for waterproofing membranes. For cases requiring waterproofing, please refer to the ARDEX 8+9™ Rapid Waterproofing and Crack Isolation Compound technical brochure and the ARDEX 8+9 "5 Step Application Guide."

At 70°F (21°C), the working time of ARDEX 100% Epoxy Adhesive is approximately 1 hour, and the pot life is approximately 40 minutes. Jobsite conditions and temperature may affect working time and pot life.

ARDEX 100% Epoxy Adhesive is intended for installation 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.

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

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

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

Tools should be cleaned with water before the epoxy has begun to set. It is not possible to clean them once the epoxy has cured fully.

For setting natural stone, please contact the ARDEX Technical Service Department.

Consult ARDEX Technical Service Department on limitations for exterior installations.

## 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](http://www.ardexamericas.com).

## Chemical Resistance

**Long-term resistance. No effects noted after 7-day immersion.**

Aluminum sulfate (26.5%, saturated)  
Ammonia (concentrated)  
Animal fats

Brine  
Calcium chloride (saturated)  
Calcium hydroxide (saturated)  
Carbon disulfide  
Caustic soda (saturated)  
Chromic Acid (5%)  
Citric acid (saturated)  
Diesel  
Effluent (wastewater, non-industrial)  
Ethylene glycol  
Formalin solution (3%)  
Formic acid (2.5%)  
Glycerin  
Household detergent  
Hydrochloric acid (<36%)  
Hydrofluoric acid (1%)  
Hydrogen peroxide (25%)  
Hypochlorite solution (act. Cl 165 g/L)  
Lactic acid (10%)  
Methyl alcohol (<5NR%)  
Moor water  
Nitric acid (<1NR%; not concentrated)  
Oleic acid  
Olive oil  
Oxalic acid (10% in water)  
Peanut oil  
Petrol  
Phosphoric acid (75%)  
Photographic developing fluid  
Sea water  
Sodium bisulfite (23%, saturated)  
Sodium chromate (34%, saturated)  
Sodium hydroxide (saturated)  
Sodium hyposulfite (17%, saturated)  
Tannic acid (10% ig)  
Tartaric acid (saturated)  
Toluene  
Treacle  
Turpentine  
Vegetable fats  
Xylene

**Long term resistance. No effects other than discoloration noted after 7 day immersion.**

Potassium permanganate (≤ 10%)  
Sulfuric acid (80%)  
Ferrum (III) chloride (47.9%, saturated)

**Short-term resistance. No effects noted after 1-day immersion; effects noted after 3-day immersion.**

Acetic acid (5%)  
Ethyl alcohol (concentrated)  
Formic acid (10%)  
Lactic acid (20%)  
Nitric acid (40%; not concentrated)

**Not resistant. Effects noted after 1-day immersion.**

Acetic acid (>10%)	Acetone
Butanone (MEK)	Chloroform
Ethyl acetate	Hydrofluoric acid (>5%)
Lactic acid (>20%)	Methylene chloride
Nitric acid (concentrated)	Sulfuric acid (96%)

## Technical Data According To ARDEX

### Quality Standards

All data based on a partial, in-lab mix. Mixing and testing completed at 70°F/21°C. Physical properties are typical values and not specifications.

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**Mixing Ratio:** Mix all of "B" into "A".

#### Coverage

(When used as a setting adhesive):

1/4" x 1/4" x 1/4" sq. notch trowel.  
For tiles larger than 4 sq. in.  
(25 cm<sup>2</sup>) 19.5 sq. ft. (1.8 m<sup>2</sup>) per  
combined "Part A" Resin and "Part B"  
Hardener (8.8 lbs. / 4 kg) total

3/16" (D) x 5/32" (W) V-notch trowel.  
For tiles 4 sq. in. (25 cm<sup>2</sup>) or less.  
32 sq. ft. (3 m<sup>2</sup>) per combined "Part A"  
Resin and "Part B" Hardener  
(8.8 lbs. / 4 kg) total

**Pot Life:** Approx. 40 minutes

**Working Time:** Approx. 1 hour

**Open Time:** Approx. 1 hour

**Time to Grout:** 12 hours

**Open to Traffic:** Light foot traffic: 12 hours

Full traffic loads: 2 days

Limited chemical resistance and submerged  
applications: 7 days

**VOC:** 2.67 g/L per ASTM D2369

**Packaging:** "Part A" Resin (6.6 lbs./3 kg)  
"Part B" Hardener (2.2 lbs./1 kg)

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

**Shelf Life:** 1 year, if unopened.

**Warranty:** ARDEX, L.P. Standard Limited Warranty  
applies. Also eligible for the ARDEX  
Tile and Stone Installation Systems  
SystemOne™ Warranty.

ISO 13007 Classification	Test Characteristic (28-Day Cure)	Classification Requirement
R2 (reaction resin adhesive, improved)	Shear adhesion strength after water immersion	≥ 290 psi (2 MPa/20 kg/cm <sup>2</sup> )
	Open time: tensile adhesion strength	≥ 725 psi (5 MPa/51 kg/cm <sup>2</sup> )
	Shear adhesion strength after thermal shock	≥ 290 psi (2 MPa/20 kg/cm <sup>2</sup> )
R2T (reaction resin adhesive, improved characteristics, thixotropic, high sag resistance)	Additionally, with low sag	< 0.5 mm

### Evaluation per ANSI A118.3

Property (Test Number)	Value	
	Evaluation	Requirement
Water Cleanability (E 5.1)	Pass	80 minutes
Initial Setting Time (E 5.2)	Pass	>2 hours
Service Strength Setting Time (E 5.2)	Pass	<7 days
Shrinkage 7-day (E 5.3)	0.1	<0.25%
Sag (E 5.4)	Pass	No Evident Change
Bond Strength to Quarry Tile (E 5.5)	Pass*	>1000 psi
Compressive Strength 7-day (E 5.6)	9050 psi	>3500 psi
Tensile Strength 7-day (E 5.7)	2610 psi	>1000 psi
Thermal Shock (E 5.8)	1569 psi	>500 psi

\*Tile failed during test TCNA-557-13

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Updated 2024/02/26. Supercedes all previous versions. Check [www.ardexamericas.com](http://www.ardexamericas.com) for updates. Published 2024/02/26

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