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# ARDEX WA™

## High-Performance, 100% Solids Epoxy Grout and Adhesive

**So easy to apply and clean, you won't believe it's an epoxy!**

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Use to grout joints up to 1/2" (12 mm) wide

Use for setting all types of tile

Use where maximum chemical resistance and/or  
hygiene and cleanliness are 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

Use for interior and exterior floors and walls

Waterproof and frost resistant

Solvent free, low VOC's

Available in 35 colors



**SystemOne™**

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# ARDEX WA™

## High-Performance, 100% Solids Epoxy Grout and Adhesive

### Description and Usage

ARDEX WA™ High-performance, 100% Solids Epoxy Grout and Adhesive is a solvent-free, two-component epoxy grout and adhesive. ARDEX WA 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. Tile installed with ARDEX WA can be grouted in 12 hours. For details on required cure times after grouting, see Cure Times section.

### Substrate Preparation (For use as a setting adhesive)

ARDEX WA adheres to all dry, common 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, use ARDEX AM 100™ Rapid Set Pre-Tile Smoothing and Ramping Mortar or ARDEX A 38 MIX™ Rapid-Set Pre Mixed Screed, ARDEX A 38™ Rapid , or use 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 brochures.

### Joint Preparation (For use as a grout)

The existing tile must be set firmly. The tile joints must be clean and free of all setting materials, dust, moisture and foreign matter. Clean the tile surface to remove contaminants that may discolor the epoxy.

Expansion joints must be provided over existing moving joints and cracks and where substrate materials change composition or direction per ANSI A108 AN-3.7.

### Recommended Tools

Appropriate notched trowel, epoxy grout float, 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 WA 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." Add the "B" to the "A," and mix with a low speed drill and an ARDEX T-2 Ring Mixing Paddle. Smaller batches can be measured carefully by using 3 parts by weight of "A" to 1 part by weight of "B."

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

The working time of ARDEX WA is approximately 1 hour at 70°F (21°C). Mix only as much as can be applied within this time. Note that, as is the case with all reactive materials, elevated temperatures will drastically reduce the pot life and working time of the epoxy.

**For use as a setting adhesive:** 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. 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.

Tiles can be grouted after 12 hours using ARDEX WA (see below).

**For use as a grout:** Installation should proceed in accordance with ANSI A108.10. Using a high quality epoxy grout float, work the epoxy into the joints until they are filled completely.

As the work proceeds, remove all excess epoxy from the face of the tile using the epoxy grout float, working at a 45° angle to the tile to avoid removing the epoxy from the joints.

After 15 minutes, any residual epoxy on the face of the tile can be removed within the working time of the epoxy (maximum 60 minutes) using a white Scotch-Brite® pad. Apply gentle pressure to the pad, and work in a circular motion to emulsify the epoxy. Carefully remove the slurry with a barely damp ARDEX sponge, rinsing the sponge with clean water after each pass. Any haze that may be noticed after the epoxy has begun to cure can be removed as above, but only within the first several hours after installation.

### Cure Times (After Grouting)

Tile installed and grouted with ARDEX WA can be opened to traffic after sufficient curing in accordance with the following schedule (70°F):

<b>12 hours:</b>	Light foot traffic
<b>2 days:</b>	Full traffic loads
<b>7 days:</b>	ARDEX WA can be submerged and is resistant to aqueous salt solutions, chlorine water, swimming pool detergents, standard commercial and domestic cleaning agents, alkalis and a wide range of dilute mineral acids.

## Notes

FOR PROFESSIONAL USE ONLY.

When setting paper-faced glass mosaic or porcelain mosaic tiles, apply sufficient mortar such that when the mosaic is pressed into place, the mortar rises up through the joints. Any subsequent grouting that is necessary must also be done with ARDEX WA.

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 WA is approximately 1 hour, and the pot life is approximately 40 minutes. Jobsite conditions and temperature may affect working time and pot life.

ARDEX WA 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.

Some types of tiles may be prone to scratching and surface discoloration when using ARDEX WA as a grout. As always, 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.

Certain strong solvent finish products and propane heater exhausts can cause yellowing of epoxy. The use of these types of materials and heaters should be avoided. Please contact the ARDEX Technical Department regarding installations where these types of products are being used prior to the installation.

## 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).

## Colors Available

Also refer to the ARDEX Grout Color Chart, available at your local ARDEX distributor.

Polar White 01	Silver Summer 19
Fresh Lily 02	Ocean Gray 20
Sugar Cookie 03	Slate Gray 21
Antique Ivory 04	Cast Iron 22
Winter White 05	Charcoal Dust 23
Classic Vanilla 06	Black Licorice 24
Floating Driftwood 07	Stormy Mist 25
Vintage Linen 08	Organic Earth 26
Natural Almond 09	Azure Blue 27
Irish Crème 10	Gentle Blush 28
Barley 11	Fresh Magnolia 29
Wild Mushroom 12	Pink Champagne 30
Stone Beach 13	Burnt Orange 31
Chocolate Mousse 14	Baked Terra Cotta 32
Gray Dusk 15	Asparagus 33
Ground Cocoa 16	Summer Yellow 34
Coffee Bean 17	Brilliant White 35
Dove Gray 18	

## Color Variance

Actual epoxy color may vary when dry, depending on installation conditions, substrate, type of tile installed and other factors.

## Chemical Resistance

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

Ammonia (concentrated)  
Animal fats  
Brine  
Calcium hydroxide (saturated)  
Caustic soda (saturated)  
Chromic Acid (5%)  
Citric acid (saturated)  
Diesel  
Effluent (wastewater, non-industrial)  
Ethylene glycol  
Formalin solution (3%)  
Glycerine  
Household detergent  
Hydrochloric acid (<36%)  
Hydrofluoric acid (1%)  
Hydrogen peroxide (<10%)  
Lactic acid (10%)  
Methyl alcohol (<5NR%)  
Moor water  
Nitric acid (<1NR%; not concentrated)  
Petrol  
Phosphoric acid (<5NR%)  
Photographic developing fluid

# SystemOne™



Sea water  
Sodium hydroxide (saturated)  
Sulphuric acid (<8NR%)  
Tartaric acid (saturated)  
Treacle  
Vegetable fats

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

Acetic acid (5%)  
Ethyl alcohol (concentrated)  
Formic acid (1%)  
Lactic acid (20%)  
Nitric acid (<4NR%; not concentrated)

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

Acetic acid (>10%)  
Acetone  
Butanone (MEK)  
Chloroform  
Ethyl acetate  
Formic acid (3%)  
Hydrofluoric acid (>5%)  
Lactic acid (>20%)  
Methylene chloride  
Nitric acid (concentrated)

## Technical Data According To ARDEX Quality Standards

All data based on a mixing ratio of 3 parts by weight of "A" to 1 part by weight of "B" at 70°F (21°C). Physical properties are typical values and not specifications.

**Mixing Ratio:** Mix all of "B" into "A;" smaller batches can be measured carefully by using 3 parts by weight of "A" to 1 part by weight of "B."

**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. / 9 lb. tub  
(1.8 m<sup>2</sup>/4.08 kg)

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. / 9 lb. tub  
(3 m<sup>2</sup>/4.08 kg)

**Coverage (When used as a grout):** See coverage table below.

**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; see Cure Time (After Grouting) section for details

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

**Packaging:** Approx. 9 lb. (4.08 kg) net weight tub

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

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

**Warranty:** ARDEX Engineered Cements Standard Limited Warranty applies. Also eligible for the ARDEX SystemOne™ Warranty.

ISO 13007 Classification	Test Characteristic (28-Day Cure)	Classification Requirement
RG (reaction resin grout)	Abrasion resistance	Less than or equal to 0.015 cu. in. (250 mm <sup>3</sup> )
	Flexural strength	Greater than 4,350 psi (30 MPa/305 kg/cm <sup>2</sup> )
	Compressive strength	Greater than 6,525 psi (45 MPa/457 kg/cm <sup>2</sup> )
	Shrinkage	Less than 0.06 in./3.28 ft. (1.5 mm/m)
	Water absorption	Less than 0.0002 lb. (0.1 g)
	Shear adhesion strength	≥ 290 psi (2 MPa/20 kg/cm <sup>2</sup> )
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

## ARDEX WA coverage in sq. ft. (when used as a grout)

Coverage based on a 9 lb. (4.08 kg) tub. Actual coverage may vary based on jobsite conditions, tile textures and installation methods.

Tile Size (inches)			Grout Joint Size (inches)							
Width	Length	Thickness	1/16	1/8	3/16	1/4	5/16	3/8	7/16	1/2
1	1	1/4	36.0	18.6	12.8	10.0	8.3	7.2	6.4	5.8
2	2	1/4	70.9	36.0	24.3	18.6	15.1	12.8	11.2	10.0
2	2	3/8	47.3	24.0	16.2	12.4	10.1	8.6	7.5	6.6
4 1/4	4 1/4	5/16	119.3	60.1	40.3	30.5	24.6	20.6	17.8	15.7
4	8	1/2	93.5	47.0	31.4	23.8	19.1	16.0	13.8	12.1
6	6	1/2	105.2	52.9	35.3	26.7	21.5	18.0	15.5	13.7
8	8	3/8	186.8	93.8	62.6	47.3	37.9	31.8	27.3	24.0
12	12	3/8	279.8	140.3	93.5	70.5	56.5	47.3	40.6	35.6
13	13	3/8	303.1	151.9	101.3	76.3	61.1	51.1	43.9	38.5
16	16	3/8	372.9	186.8	124.5	93.8	75.0	62.8	53.8	47.3
18	18	3/8	419.4	210.1	139.9	105.4	84.3	70.5	60.5	53.1
24	24	3/8	559.0	279.8	186.3	140.3	112.2	93.8	80.4	70.5

## ARDEX WA coverage in m<sup>2</sup> (when used as a grout)

Coverage based on a 9 lb. (4.08 kg) tub. Actual coverage may vary based on jobsite conditions, tile textures and installation methods.

Tile Size (mm)			Grout Joint Size (mm)							
Width	Length	Thickness	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0
25	25	6	3.5	1.8	1.3	1.0	0.8	0.7	0.6	0.6
51	51	6	7.0	3.5	2.4	1.8	1.5	1.3	1.1	1.0
51	51	10	4.6	2.4	1.6	1.2	1.0	0.8	0.7	0.6
108	108	8	11.7	5.9	4.0	3.0	2.4	2.0	1.7	1.5
102	203	13	9.2	4.6	3.1	2.3	1.9	1.6	1.4	1.2
152	152	13	10.3	5.2	3.5	2.6	2.1	1.8	1.5	1.3
203	203	10	18.4	9.2	6.2	4.6	3.7	3.1	2.7	2.4
305	305	10	27.5	13.8	9.2	6.9	5.6	4.6	4.0	3.5
330	330	10	29.8	14.9	10.0	7.5	6.0	5.0	4.3	3.8
406	406	10	36.7	18.4	12.3	9.2	7.4	6.2	5.3	4.6
457	457	10	41.2	20.6	13.8	10.4	8.3	6.9	5.9	5.2
610	610	10	55.0	27.5	18.4	13.8	11.0	9.2	7.9	6.9

Made in the USA

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Updated 4/29/2015. Supersedes all previous versions. Check [www.ardexamericas.com](http://www.ardexamericas.com) for updates.

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