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# ARDEX X 7 R™

## Rapid Set, Flexible Thin Set

Fast, easy and highly versatile!

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Fast setting – grout in just two hours

Use for setting porcelain, quarry, ceramic, mosaic  
and most natural stone tiles\*

For interior and exterior applications, floors,  
walls and countertops

Very easy to mix and apply

Suitable for use with in-floor heating systems

For use in wet areas, including showers, swimming pools, etc.

Available in gray, 40 lb. and 20 lb. bags



**SystemOne™**

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# ARDEX X 7 R™

## Rapid Set, Flexible Thin Set

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### Description and Usage

ARDEX X 7 R™ is a multi-purpose, rapid setting, polymer modified, thin set mortar for setting porcelain, quarry, ceramic, mosaic and most natural stone tiles\* in exterior or interior floor and wall applications. ARDEX X 7 R is fast setting, allows for grouting in just two hours and is especially formulated with enhanced properties of adhesion and flexibility.

ARDEX X 7 R can be used in wet areas, including residential and commercial showers and swimming pools, as well as over in-floor heating systems.

### Substrate Preparation

ARDEX X 7 R adheres to both dry and damp substrates that are structurally sound, solid and free from any contaminant that can act as a bond breaker. Plywood substrates must be dry, APA-rated, Type 1 exterior-grade plywood. 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. 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 EB 2™ Fast Setting Screed Cement for exterior or interior use, 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.

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

**Option 1:** Apply a scratch coat of ARDEX X 7 R. Allow the scratch coat to harden and dry completely before proceeding with the tile installation.

**Option 2 (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.

### EXISTING TILES (TILE OVER TILE APPLICATIONS)

**Option 1:** Apply a coat of ARDEX 8+9™ Waterproofing and Crack Isolation Compound, which must dry 1 - 2 hours before proceeding with the tile installation.

**Option 2 (interior, dry applications only):** Prime the existing tiles with ARDEX P 82™ Ultra Prime, and allow this course to dry thoroughly (min. 3 hours, max. 24 hours) before proceeding with the tile installation.

### EXISTING METAL, GLASS, AND CERTAIN OTHER NON-POROUS SURFACES

**Option 1:** Apply a coat of ARDEX 8+9 Waterproofing and Crack Isolation Compound, which must dry 1 - 2 hours before proceeding with the tile installation.

**Option 2 (interior, dry applications only):** Prime with ARDEX P 82, and allow this course to dry thoroughly (min. 3 hours, max. 24 hours) before proceeding with the tile installation.

For more information, refer to the ARDEX Substrate Preparation Brochure at [www.ardexamericas.com](http://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 7 R, use 4 3/4 - 5 quarts (4.5 - 4.7 L) of clean water. For one 20 lb. (9 kg) bag of ARDEX X 7 R, use 2 3/8 - 2 1/2 quarts (2.25 - 2.3 L) of clean water. To mix smaller quantities by hand, use 3 1/4 parts powder to 1 part water by volume.

Pour water in the mixing container first, and then add the ARDEX X 7 R while mixing for 2 to 3 minutes. For best results, mix with an ARDEX T-2 Ring Mixing Paddle and

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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 mixing to a thicker consistency, less water can be used (minimum 4 1/2 quarts / 4.2 L per 40 lb. bag and minimum 2 1/4 quarts / 2.1 L per 20 lb. bag). However, this can lead to a shorter working time and pot life.

The pot life of ARDEX X 7 R is approximately 30 - 40 minutes at 70°F (21°C). Jobsite conditions and temperature may affect pot life. If the material begins to harden within this time, retemper 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 trowel to obtain a solid mechanical bond. Apply to an area no greater than that which can be covered with tile while the mortar remains plastic (approx. 20 minutes). Do not set tile or stone into skinned over mortar. Comb the mortar with a notched trowel of sufficient depth to ensure that the tile or stone is covered uniformly over the entire surface. Follow the recommendations of the Tile Council of North America for proper transfer of ARDEX X 7 R from the substrate to the tile or stone. The type and size of the tile or stone will dictate the size of the notched trowel to be used to achieve proper transfer. The position of the tile or stone may be adjusted for up to approximately 20 minutes after installation.

## Grouting

Floor and wall tiles can be grouted in accordance with ANSI A 108.10 using the appropriate ARDEX grout as soon as the ARDEX X 7 R has hardened sufficiently so that the tiles will not be dislodged (approximately 2 hours).

## 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 tile.

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

ARDEX X 7 R 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. Observe the basic rules of tile work.

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

When setting large-format tiles on a floor, it is more advantageous to use ARDEX X 78™ MICROTEC® Fiber Reinforced, Semi-Pourable, Polymer Modified Thin Set Mortar or ARDEX FB 9 L™ Pourable ShearFlex® Mortar to facilitate complete contact with the tile.

\*For setting moisture-sensitive natural stone or agglomerate tile, use ARDEX X 32™ MICROTEC® Fiber Reinforced Rapid Setting Thin to Thick Bed Mortar or ARDEX S 16™ Fast Setting Thin Set Mortar for Marble & Stone (interior, dry applications only).

Dispose of container 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 Material Safety Data Sheet (MSDS) available at [www.ardexamericas.com](http://www.ardexamericas.com).

## Technical Data According to ARDEX Quality Standards

All data based on a mixing ratio of 3 1/4 parts powder to 1 part water by volume at 70°F (21°C). Physical properties are typical values and not specifications.

<b>Mixing Ratio:</b>	4 3/4 - 5 quarts (4.5 - 4.7 L) of water per 40 lb. (18 kg) bag 2 3/8 - 2 1/2 quarts (2.25 - 2.3 L) of water per 20 lb. (9 kg) bag For smaller batches, use 3 1/4 parts powder to 1 part water by volume
<b>Approximate Coverage per 40 lb. (18 kg) bag:</b>	1/4" x 1/4" x 1/4" Sq. Notch Trowel 85 sq. ft (7.9 sq. m) 1/4" x 3/8" x 1/4" Sq. Notch Trowel 70 sq. ft (6.5 sq. m)
<b>Open Time:</b>	Up to approx. 20 minutes
<b>Pot Life:</b>	Approx. 30 - 40 minutes
<b>Working Time:</b>	Approx. 20 minutes
<b>Time to Grout Floor and Wall Tiles:</b>	As soon as the mortar has hardened sufficiently so that the tiles will not be dislodged (approximately 2 hours)
<b>Color:</b>	Gray
<b>VOC:</b>	0
<b>Packaging:</b>	40 lb. (18 kg) bag 20 lb. (9 kg) bag
<b>Storage:</b>	Store in a cool, dry area. Do not leave bags exposed to sun.
<b>Shelf Life:</b>	1 year, if unopened
<b>Warranty:</b>	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 by ARDEX Engineered Cements, Aliquippa, PA 15001

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Updated 09-27-2013. Supersedes all previous versions. Check [www.ardexamericas.com](http://www.ardexamericas.com) for updates.

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## ISO 13007 Classifications

ISO 13007 Classification	Classification Requirement	Test Characteristic
C2 (cementitious, improved adhesion)	≥ 145 psi (1 MPa / 10.2 kg/cm²) after standard aging, heat aging, water immersion and freeze/thaw cycles	Using porcelain tile
T (vertical slip resistance)	≤ 0.019" (0.5 mm)	Using porcelain tile

## ANSI Specifications

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/cm²)	370 psi (2.55 MPa / 25.9 kg/cm²)
Glazed wall tile shear strength	ANSI A118.4	>300 psi (2.07 MPa / 21 kg/cm²)	490 psi (3.38 MPa / 34.3 kg/cm²)
Quarry tile to plywood shear strength	ANSI 118.11	>151 psi (1.04 MPa / 10.6 kg/cm²)	235 psi (1.62 MPa / 16.45 kg/cm²)

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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