

## **ARDEX GUIDE SPECIFICATION**

### **ARDEX AM100™, ARDEX A 38™ MIX, ARDEX S 1-K™, ARDEX X 5™, ARDEX WA™ and ARDEX SX™**

Subfloor Preparation Materials for Applications to Receive the Installation of Tile and Stone

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#### **SECTION 09 30 00**

#### **ARDEX TILE & STONE INSTALLATION MATERIALS AND SYSTEMS**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings, general provisions of the Contract, and other related construction documents such as Division 01 specifications apply to this Section

#### **1.2 SUMMARY**

- A. This Section includes the installation of tile with a latex modified thin-set mortar on the shower floors and walls.
  - 1. ARDEX AM100™ Rapid Set Pre-Tile Smoothing and Ramping Mortar
  - 2. ARDEX A 38™ MIX Rapid-Set, Pre Mixed Screed
  - 3. ARDEX S 1-K™ One-Component Waterproofing and Crack Isolation Membrane
  - 4. ARDEX X 5™ Flexible Tile and Stone Mortar
  - 5. ARDEX WA™ High Performance, 100% Solids Epoxy Grout and Adhesive
  - 6. ARDEX SX™ 100% Silicon Sealant for Tile and Stone Applications
- B. Complete ARDEX product and system installation details are provided in their corresponding Technical Brochure available at [www.ardexamericas.com](http://www.ardexamericas.com).
- C. Related Sections include the following:
  - 1. Division 09 Tile & Stone Sections

#### **1.3 REFERENCES**

- A. AMERICAN NATIONAL STANDARDS INSTITUTE (A.N.S.I.)
  - 1. A-118.3 Chemical Resistant, Water Cleanable Tile-Setting and –Grouting Epoxy and Water Cleanable Tile-Setting Epoxy Adhesive
  - 2. A-118.4 Modified Dry-Set Cement Mortar
  - 3. A-118.10 Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation
  - 4. A-118.11 EGP Latex-Portland Cement Mortar

5. A-108.01 General Requirements for Subsurfaces and Preparations by Other Trades
  6. A-108.10 Installation of Grout in Tilework
  7. A-108.5 Installation of Ceramic Tile with Latex Thin-Set Mortar
- B. TILE COUNCIL OF NORTH AMERICA, INC. (TCNA)
1. EJ171 Movement Joint Guidelines for Ceramic, Glass and Stone
- C. INTERNATIONAL STANDARDS ORGANISATION (ISO)
1. ISO 13007 – Ceramic Tile-Grouts & Adhesives
    - C – Cementitious Mortar
    - T – Thixotropic
    - E – Extended Open Time

#### 1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, a Revit file with applicable materials meeting the Revit Content Style Guide, and installation instructions for each material and product used. Include manufacturer's Safety Data Sheets.
- B. Qualification Data: For Installer

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Experience: Provide products of this section by companies which have successfully specialized in production of this type for not less than 5 years. Contact Manufacturer Representative prior to installation.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver products in original packaging, labeled with product identification, manufacturer, batch number and shelf life.
- B. Store products in a dry area with temperature maintained between 50° and 85° F (10° and 29° C) and protect from direct sunlight.
- C. Handle products in accordance with manufacturer's printed recommendations.

#### 1.7 PROJECT CONDITIONS

- A. Do not install material below 50° F (10° C) surface and air temperatures. These temperatures must also be maintained during and for 48 hours after the installation of products included in this section. Install quickly if substrate is warm and follow warm weather instructions available from the ARDEX Technical Service Department.

## **PART 2 - PRODUCTS**

### **2.1 PORTLAND CEMENT-BASED SUBFLOOR PREPARATION MATERIALS**

#### **A. Acceptable Products:**

1. ARDEX AM100™; Manufactured by ARDEX AMERICAS USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)
2. Performance and Physical Properties: Meet or exceed the following values for material cured at 70° F+/-3°F (21° C+/-3°C) and 50% +/-5% relative humidity:
  - a. Application: Trowel
  - b. Open Time: 10 minutes
  - c. Pot Life: 30-45 minutes
  - d. Working Time: 30 minutes
3. ARDEX A 38 MIX™; Manufactured by ARDEX AMERICAS USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)
4. Performance and Physical Properties: Meet or exceed the following values for material cured at 70° F+/-3°F (21° C+/-3°C) and 50% +/-5% relative humidity:
  - a. Application: Trowel
  - b. Pot Life: 60 minutes
  - c. Working Time: 60 minutes
5. WATER: Water shall be clean, potable, and sufficiently cool (not warmer than 70°F).

### **2.2 ONE-COMPONENT WATERPROOFING & CRACK ISOLATION COMPOUND**

#### **A. Acceptable Products:**

1. ARDEX S 1-K; Manufactured by ARDEX AMERICAS USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)
2. Performance and Physical Properties: Meet or exceed the following values for material cured at 70° F+/-3°F (21° C+/-3°C) and 50% +/-5% relative humidity:
  - a. Working time: Unlimited. Seal unused portion to prevent product from drying out.
  - b. Coats: 2
  - c. Dry Time: 1 – 2 hours – coat 1, 12 – 16 hours – coat 2
  - d. Meets or Exceeds ANSI A 118.12 and ANSI A 118.10

### **2.3 MORTAR**

#### **A. Acceptable Products:**

1. ARDEX X 5™; Manufactured by ARDEX AMERICAS USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)
2. WATER: Water shall be clean, potable, and sufficiently cool (not warmer than 70°F).

## 2.4 GROUT

### A. Acceptable Products:

1. ARDEX WA™; Manufactured by ARDEX AMERICAS USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)
2. Performance and Physical Properties: Meet or exceed the following values for material cured at 70° F+/-3°F (21° C+/-3°C) and 50% +/-5% relative humidity:
  - a. Pot Life: 40 minutes
  - b. Working Time: 60 minutes
  - c. Open to Traffic: 12 hours (light foot traffic)

## 2.5 CAULK

### A. Acceptable Products:

1. ARDEX SX; Manufactured by ARDEX Americas USA, (724)203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)

## **PART 3 – EXECUTION**

### 3.1 PREPARATION

#### A. Subfloors: Prepare substrate in accordance with manufacturer’s instructions.

1. Prior to proceeding please refer to ANSI A 108.01 “General Requirements for Subsurface” and the TCNA’s “Handbook for Ceramic Tile Installation” for detailed information. Substrate and ambient temperatures must be a minimum of 50°F (10°C).

#### B. Joint Preparation:

1. Moving Joints – Expansion joints must be provided over existing moving joints and cracks in the structure should continue through the tile work.
2. Saw Cuts and Control Joints – fill all non-moving joints

### 3.2 APPLICATION OF PORTLAND CEMENT-BASED PRE-TILE MORTAR

#### A. Application: Comply with manufacturer's printed instructions for mixing of material, installation, and cure. For questions contact the ARDEX Technical Services Department at (724) 203-5000.

### 3.3 APPLICATION OF PRE MIXED SCREED

#### A. Install Pre-Mixed Screed per manufacturers instructions

### 3.4 APPLICATION OF ONE-COMPONENT WATERPROOFING & CRACK ISOLATION COMPOUND

#### A. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected. . Fill all cracks, holes and low spots

- B. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas from contact due to mixing and handling of materials.
- C. Install Waterproofing Membrane and Vapor Retarder
- D. Comply with manufacturer's printed instructions for installation and cure.

3.5 INSTALL TILE WITH MORTAR

- A. Comply with manufacturer's printed instructions for mixing of material, installation, and cure. Install mortar in accordance with ANSI A108.05.

3.6 INSTALL GROUT AND CAULK

- A. Install grout in accordance with ANSI A108.10.
- B. Comply with manufacturer's printed instructions for mixing of material, installation, and cure.

3.7 FIELD QUALITY CONTROL

- A. Where required, contact manufacturer for field sampling methods and procedures.

3.5 PROTECTION

- A. Protect installation

**END OF SECTION**