

## **ARDEX GUIDE SPECIFICATION**

### **ARDEX A 38™ MIX, ARDEX SK 175™, ARDEX X 77™, ARDEX WA™**

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 on shower floors and walls.
  - 1. ARDEX A 38™ MIX Rapid-Set, Pre Mixed Screed
  - 2. ARDEX SK 175™ Waterproofing Membrane and Vapor Retarder for Tile & Stone Installations
  - 3. ARDEX X 77™ MICROTEC® Fiber Reinforced Tile and Stone Mortar
  - 4. ARDEX WA™ High Performance, 100% Solids Epoxy Grout and Adhesive
- 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 118.15 For Improved Modified Dry-Set Cement Mortar

6. A-108.01 General Requirements for Subsurfaces and Preparations by Other Trades
  7. A-108.10 Installation of Grout in Tilework
  8. A-108.5 Installation of Ceramic Tile with Latex Thin-Set Mortar
  9. A 108.6 Installation Of Ceramic Tile With Chemical Resistant, Water Cleanable Tile-Setting And Grouting Epoxy
- 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
    - a. C- Cementitious
    - b. F - Fast Setting
    - c. 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. Installation of the ARDEX product must be completed by a factory-trained, using mixing equipment and tools approved by the manufacturer. Please contact ARDEX Americas (724) 203-5000.
- B. 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 A 38 MIX™; 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. Pot Life: 60 minutes
  - c. Working Time: 60 minutes
3. WATER: Water shall be clean, potable,

### **2.2 WATERPROOFING MEMBRANE**

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

1. ARDEX SK 175; 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. Meets or Exceeds ANSI A 118.10 For Load Bearing, Bonded, Waterproof Membranes For Thin-Set Ceramic Tile And Dimension Stone Installation

### **2.3 MORTAR**

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

1. ARDEX X 77™; Manufactured by ARDEX AMERICAS USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)
2. WATER: Water shall be clean, potable

## 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)

## 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. Refer to EJ171 movement joint guidelines for ceramic, glass and stone. Moving Joints – Expansion joints should continue through the tile work, including such joints at vertical surfaces
2. Saw Cuts and Control Joints – fill all non-moving joints
3. Where the pre-mixed screed will be installed:
  - a. Under no circumstances should ARDEX A 38 MIX be installed over any moving joints or moving cracks. All existing expansion joints, isolation joints and construction joints, as well as all moving cracks, must be honored up through the underlayment and flooring.
4. Expansion joints must be provided over existing moving joints and moving cracks and where substrate materials change composition or direction.

### 3.2 APPLICATION OF PRE MIXED SCREED

#### A. Substrate shall be clean, sound, solid and free of contaminants per ANSI A 108.01 General Requirements;

#### B. Install Pre-Mixed Screed

1. Application: Comply with manufacturer's printed instructions for mixing of material, installation, and cure.

### 3.3 APPLICATION OF WATERPROOFING MEMBRANE

- A. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected. The substrate must be clean, sound, solid and suitable for the installation of tiles and slabs. Fill all cracks, holes and low spots with the appropriate ARDEX product. See the technical data sheet for further information.
- 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
  - 1. Comply with manufacturer's printed instructions for installation and cure.

### 3.4 INSTALL TILE WITH MORTAR

- A. Install tiles per ANSI A108.5.
- B. Comply with manufacturer's printed instructions for mixing of material, installation, and cure.

### 3.5 INSTALL GROUT

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

### 3.4 FIELD QUALITY CONTROL

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

### 3.5 PROTECTION

- A. Prior to the installation of the finish flooring from abuse by other trades by the use of plywood, Masonite or other suitable protection course.

**END OF SECTION**