

## **ARDEX GUIDE SPECIFICATION**

### **ARDEX X77™ MICROTEC® Thin Set Mortar with ARDEX 8+9™ Waterproofing and Crack Isolation Membrane**

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 an epoxy membrane designed to reduce the emissions of moisture vapor prior to receiving the application of a portland cement based crack isolation membrane the subsequent installation of tile with a latex modified thin-set mortar.
  - 1. ARDEX X77™ MICROTEC® Fiber Reinforced, Polymer Modified Thin Set Mortar
  - 2. ARDEX 8+9™ Waterproofing and Crack Isolation Membrane
  - 3. ARDEX FL™ Rapid Set, Flexible, Sanded Grout
- 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-118.4 Fast-setting latex thin-set mortar and latex Portland cement mortar
  - 2. A-118.11 EGP latex Portland cement mortar
  - 3. A-118.12 Crack Isolation Membrane
  - 4. A-118.7 High Performance Cement Grouts for Tile Installation

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
8. A-108.17 Installation of Crack Isolation Membrane

D. TILE COUNCIL OF AMERICA, INC.

1. Handbook for Ceramic Tile Installation

E. INTERNATIONAL STANDARDS ORGANISATION (ISO)

1. ISO 13007 – Ceramic Tile-Grouts & Adhesives

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used. Include manufacturer's Material 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, certified applicator, such as an ARDEX LevelMaster<sup>®</sup> Elite or Choice Contractor, using mixing equipment and tools approved by the manufacturer. Please contact ARDEX Engineered Cements (724) 203-5000 for a list of recommended installers.

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 THIN-SET MORTAR**

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

1. ARDEX X77™; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA 15001 USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)

#### **B. 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:**

1. Open Time: up to 60 Minutes
2. Pot Life: 3 hours
3. ISO 13007: EN C2 FT (T) E (E) S1
4. Thin Set: Meets or Exceeds ANSI A 118.11 & ANSI A 118.4

### **2.2 WATERPROOFING & CRACK ISOLATION MEMBRANE**

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

1. ARDEX 8+9™; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA 15001 USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)

#### **B. 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:**

1. Pot Life: 45 Minutes
2. Coats: 2
3. Dry Time: 1 hr. – coat 1, 2-hr coat 2
4. Crack Isolation: Meets or Exceeds ANSI A 118.12

### **2.3 GROUT**

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

1. ARDEX FL™ Sanded Grout; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA 15001 USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)

#### **B. 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:**

1. Pot Life: 30 minutes
2. Working Time: 30 minutes
3. Open to Traffic: 90 minutes

## **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).
  - 2. All subfloors must be clean and completely free of all contaminants, including dust, oil, grease, wax, sealers, paint, varnish, etc. Prepare floor as required by mechanical means. Do not use chemicals to clean the floor.
- B. Joint Preparation:
  - 1. Moving Joints – 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. A flexible sealing compound such as ARDEX ARDISEAL™ Rapid Plus may be installed.
  - 2. Saw Cuts and Control Joints – fill all non-moving joints with ARDEX ARDIFIX™ Joint Filler, as recommended by the manufacturer.

### **3.2 APPLICATION OF CRACK ISOLATION MEMBRANE**

- A. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected.
- 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 and Crack Isolation Membrane
  - 1. Reference A-108.17 Installation of Crack Isolation Membrane
  - 2. 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.
- D. Install Tile with Thin-Set Mortar
  - 1. Install tiles following the general office outline procedure set forth in ANSI A108.5.
  - 2. 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.
- E. Install Grout

1. Install grout in accordance with ANSI A108.10.
2. 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 FIELD QUALITY CONTROL

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

3.4 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**