

## **ARDEX GUIDE SPECIFICATION**

### **ARDEX X 90 OUTDOOR™ MicroteC3 Rapid-Set Flexible Tile and Stone Mortar**

Installation Materials for Tile and Stone Applications

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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 use of a mortar for the installation of 2cm Belgard Mirage 18x36 Waterfall Quartzite 2.0 Porcelain Paver and pool coping over an exterior concrete slab.
  - 1. [ARDEX X 90 OUTDOOR™ MicroteC3 Rapid-Set, Flexible Tile and Stone Mortar](#)
  - 2. ARDEX FL™ Rapid Set, Flexible, Sanded Grout
  - 3. ARDEX SX Sealant
- B. Complete ARDEX product and system installation details are provided in their corresponding Technical Data Sheet 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-118.10 Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation
  - 2. A-118.4 Fast-setting latex thin-set mortar and latex Portland cement mortar
  - 3. A-118.11 EGP latex Portland cement mortar
  - 4. A-108.01 General Requirements for Subsurfaces and Preparations by Other Trades
  - 5. A-108.5 Installation of ceramic tile with latex thin-set mortar

6. A-118.15 Improved modified dry-set cement mortar

D. TILE COUNCIL OF AMERICA, INC.

1. Handbook for Ceramic Tile Installation
2. EJ171 Movement Joint Guidelines for Ceramic, Glass and Stone

E. INTERNATIONAL STANDARDS ORGANISATION (ISO)

1. ISO 13007 C2 FTE S1 – Ceramic Tile-Grouts & Adhesives

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. Installer Qualifications:
  1. Installer is a five-star member of the National Tile Contractors Association or a Trowel of Excellence member of the Tile Contractors' Association of America.
  2. Installer employs Ceramic Tile Education Foundation Certified Installers or installer recognized by the U.S. Department of Labor as Journeyman Tile Layers.
- 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 40° 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. For ARDEX X 90, do not install material below 40°F (4°C) surface and air temperatures. For the remaining mentioned ARDEX products, do not install material below 50°F (10°) 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.

## 1.8 WARRANTY

- A. When ARDEX X 90™ is installed with our written recommendations, and the installation is installed in conjunction with the recommended ARDEX Tile & Stone Installation Materials, the installation will provide the ARDEX SystemOne comprehensive warranty

## PART 2 – PRODUCTS

### 2.1 MORTAR

- A. Acceptable Products ARDEX X 90 OUTDOOR™; Manufactured by ARDEX AMERICAS: USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)
  - 1. 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 30 minutes
    - 2. Pot Life: Approx. 1 hour
    - 3. ISO 13007: C2 FTE S1
    - 4. Thin Set: Meets or Exceeds ANSI A 118.11, ANSI A 118.4, ANSI A 118.15
    - 5. For Interior or Exterior, horizontal or vertical applications

### 2.2 GROUT OPTIONS

- A. Acceptable Products:
  - 1. ARDEX FL™; Manufactured by ARDEX Americas: 400 Ardex Park Drive, Aliquippa, PA, 15001, 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:
    - 1. ISO 13007: CG2 WA
    - 2. Meets or Exceeds ANSI A 118.7

## 2.3 FLEXIBLE SEALANT

### A. Acceptable Products:

1. ARDEX SX™; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA 15001 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.
2. Do not use chemicals to prepare the substrate, including acid etching, sweeping compounds, solvents or adhesive removers.
3. Thoroughly vacuum to remove all loose materials. The resulting surface must be deemed clean, sound and solid prior to proceeding with the installation.

#### B. Crack and Joint Preparation:

1. Moving Joints per TCNA EJ171

### 3.2 INSTALL TILE WITH MORTAR

- A. Install tiles following the general office outline procedure set forth in ANSI A108.5.
- B. Comply with manufacturer's instructions for mixing of material, installation, and cure.

### 3.3 INSTALL GROUT AND CAULK

- A. Install grout in accordance with ANSI A 108.10.
- B. Comply with manufacturer's 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. Protect the installation from abuse by other trades by the use of plywood, Masonite or other suitable protection course.

**END OF SECTION**