

**ARDEX GUIDE SPECIFICATION**  
**ARDEX X5™ Flexible Tile and Stone Mortar**

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**SECTION 09 30 13**  
**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 and non-moisture-sensitive stone with a mortar.
  - 1. ARDEX X5™ Flexible Tile and Stone Mortar
- 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-118.4 Modified Dry-Set Cement Mortar
  - 2. A-118.11 EGP Latex-Portland Cement Mortar
  - 3. A-118.7 High Performance Cement Grouts for Tile Installation
  - 4. A-108.01 General Requirements for Subsurfaces and Preparations by Other Trades
  - 5. A-108.10 Installation of Grout in Tilework
  - 6. A-108.5 Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar
- 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 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® 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.
- B. Manufacturer Experience: Provide products of this section by companies which have successfully specialized in production of this type of work for not less than 5 years. Contact Manufacturer Representative prior to installation.

- 1.6 WARRANTY: When ARDEX X 5™ is installed with our written recommendations, the installation shall be installed in conjunction with the recommended ARDEX Tile & Stone Installation Materials, as appropriate, to provide the ARDEX SystemOne comprehensive warranty.

1.7 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.

1.8 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**

### **2.0 MORTAR**

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

1. ARDEX X 5™; 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 10 - 15 minutes
2. Pot Life: Approx. 3 hours
3. ISO 13007: EN C2 T E
4. Meets or Exceeds ANSI A 118.11 & ANSI A 118.4
5. Color: White and Gray

## **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 AN-2 “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. Crack and Joint Preparation:**

1. Moving Joints and Moving Cracks – 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 Semi-Rigid Joint Sealant may be installed.
2. Saw Cuts and Control Joints – fill all dormant control joints and dormant cracks with ARDEX ARDIFIX™ Low Viscosity Rigid Polyurethane Crack & Joint Repair, as recommended by the manufacturer.

### **3.2 APPLICATION OF TILE**

#### **A. Install Tile with 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.

3.3 FIELD QUALITY CONTROL

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

3.4 PROTECTION

- A. Protect the installation from abuse by other trades using plywood, Masonite or other suitable protection course.

**END OF SECTION**