

ARDEX GUIDE SPECIFICATION

ARDEX TL 1000™ Self-Leveling Underlayment

ARDEX Substrate Preparation, Mortar and Grout Materials to Receive Tile & Stone

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 all products including those regarding substrate preparation and finishing materials required to install tile and stone.
 - 1. ARDEX Primers
 - 2. ARDEX TL 1000™ Self-Leveling Underlayment
 - 3. ARDEX X 5™ Tile and Stone Mortar
 - 4. ARDEX X 77™ MICROTEC® Fiber Reinforced Tile and Stone Mortar
 - 5. 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.
- C. Related Sections include the following:
 - 1. Division 09 Tile & Stone Sections
 - 2. Division 03 Hydraulic Cement Underlayment

1.3 REFERENCES

- A. AMERICAN NATIONAL STANDARDS INSTITUTE (A.N.S.I.)
 - 1. A-118.4 Polymer Modified Portland cement mortar
 - 2. A-118.11 EGP latex Portland cement mortar
 - 3. A-118.15 Improved Modified Dry-Set Cement Mortar

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

F. TILE COUNCIL OF NORTH AMERICA, INC.

1. Handbook for Ceramic Tile Installation

G. 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. 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 WARRANTY

- A. When ARDEX TL 1000 is installed in conjunction with the recommended ARDEX Tile & Stone Installation Materials, as appropriate, the ARDEX SystemOne™ Comprehensive Warranty shall be provide.

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

2.1 SELF-LEVELING MATERIALS

A. Acceptable Products:

1. ARDEX TL 1000™; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa PA 15001 USA, (724) 203 – 5000, www.ardexamericas.com
 - a. 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:
 - i. Application: Barrel Mix or Pump
 - ii. Compressive Strength: 4000 psi (280 kg/cm²) at 28 days (ASTM C109/mod – Air Cure)
 - iii. Flexural Strength: 1000 psi (70 kg/cm²) (ASTM C348) at 28 days
 - iv. Install tile: 6 hours for non-moisture senesitive tile and stone flooring at 70°F (21°C) and 50% RH
2. WATER: Water shall be clean, potable, and sufficiently cool (not warmer than 70°F).

2.2 MORTAR

A. Acceptable Products:

1. ARDEX X 77™; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA 15001 USA, (724) 203-5000, www.ardexamericas.com
 - a. 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:
 - i. Open Time: Up to 60 Minutes
 - ii. Pot Life: 3 hours
 - iii. ISO 13007: EN C2 FT (T) E (E) S1
 - iv. Meets or Exceeds ANSI A 118.11 & ANSI A 118.4 & 118.15
2. ARDEX X 5™; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA 15001 USA, (724) 203-5000, www.ardexamericas.com
 - a. 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:

- i. Open Time: Up to 10 – 15 minutes
- ii. Pot Life: Approx. 3 hours
- iii. ISO 13007 : EN C2 T E
- iv. Meets or Exceeds ANSI A 118.11 & ANSI A 118.4

4. WATER: Water shall be clean, potable, and sufficiently cool (not warmer than 70°F).

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
 - a. 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:
 - i. Pot Life: Approx. 30 minutes
 - ii. Working Time: Approx. 30 minutes
 - iii. Open to Traffic: 90 minutes
 - b. WATER: Water shall be clean, potable, and sufficiently cool (not warmer than 70°F).

PART 3 – EXECUTION

3.1 PREPARATION

A. Prepare substrate in accordance with manufacturer's instructions.

1. Concrete Subfloors:

- a. Prior to proceeding please refer to ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring. All concrete subfloors must be sound, solid, clean, and free of all oil, grease, dirt, curing compounds and any substance that might act as a bond breaker before priming. Mechanically clean if necessary using shot blasting or other. Acid etching and the use of sweeping compounds and solvents are not acceptable.
- b. Substrates shall be inspected in accordance with ASTM F2170 and corrected for moisture or any other conditions that could affect the performance of the underlayment or the finished floor covering. For areas where moisture vapor emissions exceed the required limits refer to Section 09 05 61.13, Moisture Vapor Emission Control and install the appropriate ARDEX Moisture Control System.

2. Cementitious Terrazzo or Ceramic, Quarry or Porcelain Tiles:
 - a. The substrate must be clean, including the complete removal of existing sealers, dust, dirt, debris and any other contaminants that may act as a bond breaker. Where necessary, substrate preparation must be by mechanical means, such as shot blasting.
 3. Final Prep: Deep Vacuuming
 - a. After mechanical preparation is completed and prior to priming, ensure that all dust and debris is removed from the substrate by vacuuming thoroughly.
 4. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas from contact due to mixing and handling of materials.
- B. Crack and Joint Preparation:
1. Moving Joints and Moving Cracks – honor all expansion, isolation joints and moving cracks up through the underlayment. A flexible sealing compound such as ARDEX ARDISEAL™ Rapid Plus Semi-Rigid Joint Sealant may be installed.
 2. Saw Cuts, Dormant Control Joints and Dormant Cracks – fill all dormant control joints and dormant cracks with ARDEX ARDIFIX™ Low Viscosity Rigid Polyurethane Crack & Joint Repair or ARDEX FEATHER FINISH® Self-Drying, Cement-Based Finish Underlayment as recommended by the manufacturer.

3.2 APPLICATION OF SELF-LEVELING UNDERLAYMENT

- 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.
- B. Prime the properly prepared substrate with the selected ARDEX primer and allow to dry in accordance with the technical data sheet.
- C. Install and allow the ARDEX TL 1000 in accordance with the respective technical data sheet.

3.3 INSTALL TILE AND STONE WITH MORTAR AND GROUT

- 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.
- B. Install tile and stone following manufacturer's instructions using ARDEX X 77 or ARDEX X 5 in accordance with the technical data sheet and ANSI A108.5.
- C. Install grout in accordance with ANSI A108.10.

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