

**ARDEX GUIDE SPECIFICATION**  
**ARDEX UI 720™ FLEXBONE®**  
Floating Uncoupling Membrane

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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 installation of a floating uncoupling membrane and the installation of tile with a mortar.
1. ARDEX UI720™ FLEXBONE® Floating Uncoupling Membrane
  2. ARDEX X 5™ Flexible Tile and Stone Mortar
  3. ARDEX X 32™ MICROTEC® Universal Rapid Setting Drying Thin-to-Thick Bed Mortar
  4. ARDEX X77™ MICROTEC® Fiber Reinforced Tile and Stone Mortar
  5. ARDEX X 78™ MIRCOTEC® Semi-Pourable Tile and Stone Mortar
  6. ARDEX FL™ Rapid Set, Flexible, Sanded Grout
  7. ARDEX WA™ High Performance, 100% Solids Epoxy Grout and Adhesive
- 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 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

### 1.4 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.

### 1.5 WARRANTY

- A. ARDEX UI 720 FLEXBONE installed as part of a floor system, shall be installed in conjunction with the recommended ARDEX Tile & Stone Installation Materials, as appropriate, to provide the ARDEX SystemOne 10-year comprehensive warranty.

### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver products in original packaging, labeled with product identification, manufacturer, batch number and shelf life.
- B. It is the responsibility of the installation contractor to inspect the ARDEX UI 720 FLEXBONE for visual defects and to verify that it is the correct thickness and type before beginning the tile or stone installation. Refer to the tile or stone manufacturer's specific recommendations.
- C. Acclimate the area, setting material, ARDEX UI 720 FLEXBONE and tile or stone in an enclosed building at a minimum of 65°F (18°C) for at least 24 to 48 hours before, during and for 24 to 48 hours after installation. Lay the ARDEX UI 720 FLEXBONE flat during acclimation.
- D. 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.

## **PART 2 - PRODUCTS**

### 2.1 FLOATING UNCOUPLING MEMBRANE

#### A. Acceptable Products:

1. ARDEX UI 720™ FLEXBONE®; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA 15001 USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)

### 2.2 MORTAR

#### A. Acceptable Products:

1. ARDEX X77™, ARDEX X 5™, ARDEX X 32™, ARDEX X 78™; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA 15001 USA, (724) 203-5000, [www.ardexamericas.com](http://www.ardexamericas.com)

### 2.3 GROUT

#### A. Acceptable Products:

1. ARDEX FL™, ARDEX WA™; 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. Approved substrates are concrete, wood subfloors, moisture-sensitive substrates, including gypsum, substrates with problem adhesion, such as coating or hard, plastic coverings and load-bearing mixed substrates made of different types of materials.
  - a. Note: When installing natural stone over wood subfloors, two layers of plywood are required. The wood subfloor must be constructed according to prevailing building codes and in accordance with TCNA or TTMAC guidelines. Wood subfloors must be solid and securely fixed to provide a rigid base free of undue flex. Any boards exhibiting movement must be properly fastened to create a sound, solid subfloor. Vacuum and sweep away all dust and debris.
2. Substrates must be load-bearing, flat and structurally sound. Vacuum or sweep all dust and debris. All substrates must be flat with a maximum variance of ¼” in 10’ or (6 mm in 3 m) from the required plane per TCNA or TTMAC guidelines or as recommended by the tile or stone manufacturer (default to the most stringent requirement).

3. Should pre-leveling or subfloor repair be required, refer to the technical data sheet.

B. Joint Preparation:

1. All existing expansion joints, isolation joints and construction joints must be honored up through the substrate, uncoupling membrane and tile or stone as indicated by TCNA or TTMAC guidelines.
2. Perimeter movement joints are essential for door areas, thresholds between rooms and geometric offsets. Arrange perimeter movement joints in accordance with industry standards. Interior areas exposed to direct sunlight, such as floors in front of floor-length windows, as well as underfloor heating areas require additional joints as required by TCNA OR TTMAC guidelines.
3. Please note that the tile or stone wall base should not be bonded to the tile or stone flooring. In these areas proper installation is achieved with ARDEX UD 146 Edge Insulation Strips, which have a self-sticking adhesive foot.
4. As needed, dormant cracks and dormant control joints can be filled with ARDEX TL Patch<sup>®</sup> Tile, Leveler, Underlayment Patch and Skimcoat.

### 3.2 APPLICATION OF INSTALLATION MATERIALS

A. Install Uncoupling Mat

1. Remove the shrink-wrap from the roll of ARDEX UI 720 FLEXBONE and unroll in onto the floor. Shaking the material once as it is unrolled can help it to relax.
2. Loosely place the ARDEX UI 720 FLEXBONE with the glass fiber mesh weave facing upwards so that it is perpendicular to the subsequent installation direction of the tile or stone installation. Trim the ends of each section as necessary in order to fit the surface area to be covered. Align the lengthwise edge of the material exactly with that of the adjacent section. Except for joint areas, edges must contact, but not overlap.
3. Around columns, pipes, cabinets and other floor penetrations and restraining structures, an expansion joint through the entire thickness, including ARDEX UI 720 FLEXBONE of about 5/16" – 3/8" (8 – 10 mm) width must be formed with ARDEX UD 146 Edge Insulation Strip.
4. The joint areas of the individual lengths are secured by overlapping the mesh weave at the sides. Joint areas at the top ends as well as any cut areas are bonded using the self-adhesive ARDEX UD 158 Seam Reinforcement Mesh Strip. If ARDEX UI 720 FLEXBONDE is installed with the intent to remove it, use a plastic sheet laid crease-free to act as a separating layer between the substrate and the membrane to protect against adhesion from any mortar used during the tile or stone installation.

5. Structural, expansion and field perimeter joints are formed by dividing the ARDEX UI 720 FLEXBONE to the required width. The joints in the mats are to be covered with self-adhesive ARDEX UD 156 Movement Joint Tape to protect against the entry of mortar and grout. The arrangement of the expansion joints in the tile or stone installation must be aligned with the divisions of the mats.
6. Tile and stone can be immediately installed over the ARDEX UI 720 FLEXBONE.

#### B. Install Tile with Mortar

1. Install tiles following the general office outline procedure set forth in ANSI A108.5. Apply the mortar to the ARDEX UI 720 with a flat side of a notched trowel (keying in) to fill in the bone-shaped cavities. Ensure that the mortar is flush with the upper surface of the mesh. Comb additional mortar “wet on wet” over the mat with the appropriate notched trowel for the size of the tile or stone being installed, and directly lay the tile or stone on top. Follow the recommendations of the TCNA or TTMAC for proper transfer of setting materials. Periodically remove and check tile or stone to ensure full coverage.
2. The mortar thickness between the top of the ARDEX UI 720 FLEXBONE and the tile side must not exceed 1/4” (6 mm). Using the correct notched trowel will provide proper thickness.
3. Where the tile or stone installation ends, metal tile edge trims and reducers are to be fastened to the load absorbing, underlying substrate. A soft expansion joint should be created between the floor covering and ARDEX UI 720 FLEXBONE membrane and the metal edging strip. The metal edging strip should be finished flush with the tile or stone installed over the ARDEX UI 720 FLEXBONE membrane.
4. 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.

#### C. 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. Never expose ARDEX UI 720 FLEXBONE to jobsite traffic. Avoid foot traffic during installation and until the mortar has cured. Prior to installing tile and stone, ARDEX UI 720 FLEXBONE should be protected with boards in areas where foot traffic is necessary.

**END OF SECTION**