

**ARDEX GUIDE SPECIFICATION**  
**ARDEX SKM™**  
**Skim Finish – Skimcoat Patch & Finishing Underlayment**

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**SECTION 03 01 30**  
**Maintenance of Cast-In-Place Concrete**

**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 a trowelable patch and skim coat for use over interior concrete, wood, moisture-insensitive tile and stone, cutback and other non-water-soluble adhesive residues on concrete.

- 1. ARDEX SKM™ Skim Finish – Skimcoat Patch & Finishing Underlayment

- B. Related Sections include the following:

- 1. Section 03 30 00, Cast-In-Place Concrete
  - 2. Section 09 05 61.13 Moisture Vapor Emission Control
  - 3. Division 09 Flooring Sections

1.3 REFERENCES

- A. ASTM F2170, Relative Humidity in Concrete Floor Slabs Using in situ Probes
- B. ASTM F710, Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring

#### 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 applicator, such as an ARDEX LevelMaster® Elite, Choice Contractor or INSTALL Substrate Prep Certified Installer, using mixing equipment and tools approved by the manufacturer. Please contact ARDEX Engineered Cements (724) 203-5000 for a list of recommended installers.
- B. Product must be cement-based having an inorganic binder content which includes a minimum 80% Portland cement per ASTM C150: Standard Specification for Portland cement and other specialty hydraulic cements. Gypsum products are not acceptable.
- C. 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: ARDEX SKM™ installed as part of a floor system, shall be installed in conjunction with the recommended ARDEX Tile & Stone Installation Materials or WW HENRY Flooring Adhesive, as appropriate, to provide the ARDEX SystemOne 10-year 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**

### 2.1 MAINTENANCE OF CAST-IN-PLACE CONCRETE

#### A. Skim Finish – Skimcoat Patch & Finishing Underlayment

##### 1. Acceptable Products:

- a. ARDEX SKM™ 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 WATER: Water shall be clean, potable, and sufficiently cool (not warmer than 70°F).

## **PART 3 – EXECUTION**

### 3.1 PREPARATION

#### A. General: Prepare substrate in accordance with manufacturer's instructions.

##### 1. Concrete:

- 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. Crack and Joint Preparation

- a. Moving Joints and Moving Cracks – Honor all moving joints and moving cracks up through the installation. A flexible sealing compound such as ARDEX ARDISEAL™ Rapid Plus Semi-Rigid Joint Sealant may be installed.

- b. Saw Cuts and Dormant Control Joints – Fill all dormant control joints and dormant cracks with ARDEX ARDIFIX™ Low Viscosity Rigid Polyurethane Crack & Joint Repair or ARDEX SKM™ as recommended by the manufacturer.
3. Wood:
- a. The wood subfloor must be constructed according to prevailing building codes and must be solid and securely fixed to provide a rigid base free of undue flex. Any boards exhibiting movement must be re-nailed. The surface of the wood must be clean and free of oil, grease, wax, dirt, varnish, shellac and any contaminant that might act as a bond breaker. If necessary, sand down to bare wood. A commercial drum sander can be used to sand large areas. Do not use solvents, strippers or cleaners. Vacuum all dust and debris. It is the responsibility of the installation contractor to verify that the wood subfloor is thoroughly clean and properly anchored.
  - b. Some flooring manufacturers recommend a finish-grade wood underlayment be installed over the existing wood subfloor. If necessary, ARDEX SKM can be used to smooth fasteners and/or joints in the wood underlayment. Please note that the wood underlayment must be suitable for the installation of the specific floor covering and must be installed in accordance with the wood underlayment manufacturer's recommendations.
4. Adhesive residues on concrete must first be tested to make certain they are not water-soluble. Water-soluble adhesives must be completely mechanically removed down to clean concrete. Non-water-soluble adhesives should be prepared to a thin, well-bonded residue using the wet-scraping technique as recommended by the Resilient Floor Covering Institute ([www.rfci.com](http://www.rfci.com)). The prepared residue should appear as nothing more than a transparent stain on the concrete after scraping.
5. Other Non-Porous Substrates: The substrate must be clean, including complete removal of existing waxes and sealers, dust, dirt, debris and any other contamination that may act as a bond breaker. Substrate preparation must be by mechanical means, such as shot blasting.

### 3.2 APPLICATION OF ARDEX SKM™:

- 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. Mixing: Comply with manufacturer's printed instructions and the following.
  - 1. Add 1.5 quarts (1.4 L) of clean potable water per 10-pound (4.5 kg) bag.
  - 2. Mix using a 1/2" (12 mm, 650 rpm) low speed heavy-duty mixing drill with an ARDEX T-2 ring mixing paddle. Do not overwater.

3. When mixing sanded materials, ARDEX recommends using the ARDEX DUSTFREE™ or a standard “gutter hook” vacuum attachment in combination with a wet/dry (Shop-Vac® style) vacuum and HEPA dust extraction vacuum system. Additionally, each bag should be handled with care and emptied slowly to avoid creating a plume of dust. Contact the ARDEX Technical Service Department for more details on ARDEX products and air quality management.

D. Application: Comply with manufacturer's printed instructions and the following.

1. ARDEX SKM can be installed from a true featheredge up to 1/2” (12 mm) over large areas.
2. Apply the ARDEX SKM to the substrate with the flat side of a trowel to obtain a solid mechanical bond before applying the desired thickness.

E. Curing

1. Most floor coverings, moisture-insensitive tile, and Portland cement-based setting materials can be installed approximately 30 minutes after applying a skimcoat of ARDEX SKM. For ARDEX SKM applications greater than 1/16”, most floor coverings can be installed after 1-2 hours and most moisture insensitive tile and Portland cement-based setting materials can be installed in 60-90 minutes. Ensure that the patch is dry and refer to the flooring manufacturer’s recommendations for installing over cementitious underlayments.

### 3.3 FIELD QUALITY CONTROL

- A. Where specified, field sampling of the Ardex underlayment is to be done by taking an entire unopened bag of the product being installed to an independent testing facility to perform compressive strength testing in accordance with ASTM C 109/modified: air-cure only. There are no in situ test procedures for the evaluation of compressive strength.

### 3.4 PROTECTION

- A. Prior to the installation of the finish flooring, the surface of the underlayment should be protected from abuse by other trades by the use of plywood, Masonite or other suitable protection course.

**END OF SECTION**