

ARDEX GUIDE SPECIFICATION
ARDEX GPS™ GENERAL PATCH & SKIMCOAT
Trowelable underlayment

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 and Division 09 specifications apply to this Section

1.2 SUMMARY

- A. This Section includes a trowelable underlayment for resurfacing of interior concrete, wood, ceramic tile, and non-water soluble adhesive residues on concrete.

- 1. ARDEX GPS™ GENERAL PATCH & SKIMCOAT
- 2. ARDEX E 25™ RESILIENT EMULSION

- 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 C 109M, Compressive Strength Air-Cure Only
- B. ASTM F 710, Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
- C. ASTM F 2170, Relative Humidity in Concrete Floor Slabs Using in situ Probes

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 to 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. 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 GPS™ 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 5-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. Trowelable patch and Skim Coat

1. Acceptable Products:

a. ARDEX GPS™; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, PA, 15001, USA, 724-203-5000, www.ardexamericas.com

i. Resilient emulsion: ARDEX E25

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:

a. Application: Trowel

b. Install Floor Covering: 1 hour

c. Coverage (approx.): 65 sq. ft. (6 m²) per bag at 1/8" (3 mm) or 700 to 800 sq. ft. (65 to 74 m²) at a skim coat

d. Compressive Strength (ASTM C109M): 4000 psi (281 kg/cm²) at 28 days

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. 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). The prepared residue should appear as nothing more than a transparent stain on the concrete after scraping.

- c. 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 – 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 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. Wood: 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.
 - 4. Other Non-Porous Substrates: ARDEX GPS can also be applied over other non-porous substrates, including ceramic and quarry tiles and well bonded VCT. 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. Any loose tiles and mortar should also be removed. Substrate preparation must be by mechanical means.

3.2 APPLICATION OF ARDEX GPS™:

- 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. For Concrete, Wood, Ceramic Tile or Cutback and other Non-Water-Soluble Adhesive Residue on Concrete:
 - a. Mix one 25 lb. (11.34 kg) bag of ARDEX GPS use 5 quarts (4.75 liters) of water. Pour water in the mixing container first, and then add the ARDEX GPS.
 - b. Mix using an ARDEX T-2 Ring Mixing Paddle and a ½" (12 mm, 650 rpm) low speed heavy-duty mixing drill

2. For VCT:
 - a. For installations over vinyl flooring such as VCT, and for improved bond strength and flexibility, use ARDEX E 25™ RESILIENT EMULSION.
 - b. Mix one 25 lb. (11.34 kg) bag of ARDEX GPS with 2 quarts (1.9 liters) of ARDEX E 25 and 3 quarts (2.8 liters) of water. Pour water in the mixing container first, and then add the ARDEX GPS.
 - c. Mix using an ARDEX T-2 Ring Mixing Paddle and a ½” (12 mm, 650 rpm) low speed heavy-duty mixing drill

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

1. Apply to the substrate using a flat-edged trowel. Scratch the product into the surface first, then trowel to the desired thickness and smoothness.
2. Apply from a featheredge up to ½” (12 mm) deep.

E. Curing

1. Floor coverings can be installed in as little as 1 hour after the application of ARDEX GPS. Make certain the patch is dry, and refer to the flooring manufacturer's specific recommendations for installing over cementitious underlayments.

3.3 FIELD QUALITY CONTROL

- A. Where specified, field sampling of the Ardex products 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 use of plywood, Masonite or other suitable protection course.

END OF SECTION