# SECTION 03 30 00 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 the application of substrate preparation materials prior to installing finish flooring.
  - 1. ARDEX A 38<sup>TM</sup> Rapid Set Screed
  - 2. ARDEX E 100<sup>TM</sup> Screed Improvement and Bonding Slurry Additive
- 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. Section 03 30 00, Cast-In-Place Concrete
  - 2. Division 09 Flooring Sections

## 1.3 REFERENCES

- A. ASTM C109M, Compressive Strength Air-Cure Only
- B. ASTM C348, Flexural Strength of Hydraulic-Cement Mortars
- C. ASTM F710, Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring

### 1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, a Revit file with applicable materials meeting the Revit Content Style Guide, 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, 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 for not less than 5 years. Contact Manufacturer Representative prior to installation.

### 1.6 WARRANTY

A. ARDEX A 38 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<sup>TM</sup> 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 SCREED

# A. Acceptable Products:

- 1. ARDEX A 38<sup>™</sup>; Manufactured by ARDEX Americas, Aliquippa PA USA, (724) 203-5000, <u>www.ardexamericas.com</u>
- 2. Performance and Physical Properties: Meet or exceed the following values for material cured at  $70^{\circ}$  F+/-3°F ( $21^{\circ}$  C+/-3°C) and 50% +/-5% relative humidity:

i. Application: Trowel

ii. Pot Life: Approx. 60 minutes

- iii. Working Time: Approx. 60 minutes
- 3. Additive: ARDEX E 100<sup>TM</sup> Screed Improvement and Bonding Slurry Additive
- 4. WATER: Water shall be clean, potable, and sufficiently cool (not warmer than 70°F).

### **PART 3 – EXECUTION**

### 3.1 PREPARATION

- A. Subfloors: Prepare substrate in accordance with manufacturer's instructions.
  - 1. 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, certain curing compounds and any contaminant 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.
  - 2. For bonded screeds, mechanical preparation of the surface is required to obtain a minimum ICRI concrete surface profile of 3 (CSP 3). This substrate preparation must be by mechanical means, such as shot blasting.
  - 3. For unbonded or floating screeds, ensure that the substrate surface is reasonably flat prior to proceeding with the installation. Prior to placing a slip sheet or polyethylene cleavage membrane, apply expansion strips around the perimeter of the installation space and any columns within to provide a gap for screed movement.

## B. Joint Preparation:

- 1. Moving Joints and Moving Cracks Under no circumstances should ARDEX underlayments be installed over any moving joints or moving cracks. All existing expansion joints, isolation joints and construction joints, as well as all moving cracks, must be honored up through the underlayment and flooring. Bay divisions and expansion joints should be incorporated as with regular cement/sand screeds per TCNA standards.
- 2. Dormant control joints and dormant cracks Dormant control joints and dormant cracks greater than a hairline (1/32 / 0.79 mm) must be pre-filled with a two-part, low viscosity, 100% solids, rigid crack and joint filler, such as ARDEX ARDIFIX. Once the dormant cracks and dormant saw cuts have been filled properly, broadcast sand to refusal, and allow these areas to cure thoroughly. Remove all excess sand prior to proceeding. ARDEX recommends wearing an N-95 dust mask when broadcasting sand

## 3.2 APPLICATION OF SCREED

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. Install screed mixed with ARDEX E 100
  - 1. 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. Prior to the installation of the finish flooring from abuse by other trades by the use of plywood, Masonite or other suitable protection course.

### END OF SECTION