

## **ARDEX GUIDE SPECIFICATION**

### **ARDEX Liquid BackerBoard®**

Self-Leveling Underlayment for Interior Wood and Concrete Subfloors

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## **SECTION 03 54 16 HYDRAULIC CEMENT UNDERLAYMENT**

### **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 ARDEX Liquid BackerBoard® Self-Leveling Underlayment for Interior Wood and Concrete Floor is a pourable blend of Portland Cement and other hydraulic cements that replaces traditional backerboards for faster, easier, seamless installation of tile and stone over wooden subfloors, concrete, terrazzo, ceramic tile and epoxy, eliminating the need to cut, fit, glue and fasten.

- 1. ARDEX Liquid BackerBoard® Self-Leveling Underlayment for Interior Wood and Concrete Subfloors

- 2. Selected ARDEX Primer

- 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 C109M, Compressive Strength Air-Cure Only

- B. ASTM C348, Flexural Strength of Hydraulic-Cement Mortars

- C. ASTM F2170, Relative Humidity in Concrete Floor Slabs Using in situ Probes

#### 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.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Experience: To have successfully specialized in production of this type of work for not less than 10 years.

#### 1.6 WARRANTY

- A. ARDEX Liquid BackerBoard installed as part of a floor system may qualify for the ARDEX SystemOne 25 Year Warranty provided all qualifying materials are provided per the SystemOne 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 HYDRAULIC CEMENT UNDERLAYMENT

- A. Hydraulic Cement Self-Leveling Underlayment

- 1. Acceptable Products:

- a. ARDEX Liquid BackerBoard; Manufactured by ARDEX AMERICAS  
[www.ardexamericas.com](http://www.ardexamericas.com)

i. Primer: Selected ARDEX primer

2. Performance and Physical Properties: Meet or exceed the following values for material cured at 70° F (21° C) and 50 percent relative humidity:
  - a. Compressive Strength: 3,000 psi (210 kg/cm<sup>2</sup>) at 28 days, ASTM C109M
  - b. Flexural Strength: 700 psi (49 kg/cm<sup>2</sup>) at 28 days, ASTM C348
  - c. VOC: 0

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: 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.
2. Wooden subfloors: The wood subfloor either must be solid hardwood flooring; a minimum of  $\frac{3}{4}$ " (19 mm) tongue-and-groove, APA-rated Type 1, exterior exposure plywood; or an approved OSB equivalent. 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 properly fastened to create a sound, solid subfloor. The surface of the wood must be clean and free of oil, grease, wax, dirt, varnish, shellac and any contaminant that might act as bond breaker. If necessary, sand 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.
4. Non-porous subfloors such as terrazzo, burnished concrete, epoxy coating systems and ceramic, quarry and porcelain tiles should be clean and free of all waxes and sealers. If necessary, clean by mechanical methods such as shot blasting or other.

B. Joint and Crack Preparation

1. Moving Cracks and Moving Joints – honor all moving cracks and moving joints including, expansion and isolation joints up through the underlayment and flooring.
2. Dormant Cracks Dormant Control Joints – fill all dormant control joints or dormant cracks with ARDEX ARDIFIX™ Joint Filler.

### 3.2 APPLICATION OF ARDEX LIQUID BACKERBOARD

- 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. Priming, Mixing, Application and Curing
  - 1. Comply with manufacturer's instructions.

### 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**