

**Guide Specification**

**S-462 Seal Strong**

### Armstrong Flooring Inc. is a global leader in the design and manufacture of flooring. Offering innovative and award-winning commercial flooring designs, Armstrong Flooring’s comprehensive solutions enable delivery of exceptional interior spaces that surpass a client’s expectations. All around the world, Armstrong Flooring supports different market segments. Armstrong Flooring is committed to systematically reducing our environmental footprint, while providing innovative products and services that enable our customers to create sustainable indoor environments. For more information about Armstrong Flooring Commercial Floors and detailed product technical information, please visit the website at [www.armstrongflooring.com/commercial](http://www.armstrong.com/commflooringna/).

### **Two-Part, Epoxy Based Moisture Mitigation System Specification**

**Please understand that you are responsible for the accuracy of all project specifications, including any Armstrong Flooring guide specifications that you use.**

**ARMSTRONG FLOORING INC. SHALL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE USE OF ANY OF ITS GUIDE SPECIFICATIONS.**

### **SECTION 09 05 61.13**

### **Above Grade Vapor Retarders**

### **Created July 2021**

### **PART 1 - GENERAL**

### **RELATED DOCUMENTS:**

1. Drawings, general provisions of the Contract, and other related construction documents such as specifications that apply to this Section:
	1. Division 01
	2. Division 03
	3. Division 09

### **1.02 SUMMARY**

1. Section Includes:
	1. A single-coat, fast-curing, 100% solids epoxy moisture mitigation system formulated to suppress excessive moisture vapor emissions in new or existing concrete (or cement­ based substrates).
2. Related Sections:
	1. Section 03 30 00, Cast-In-Place Concrete
	2. Section 03 54 16, Hydraulic Cement Underlayment for Existing Concrete Floors
	3. Division 09, Flooring Sections

### **1.03 REFERENCES**

1. Armstrong Flooring Technical Manuals
	1. Armstrong Flooring Guaranteed Installation Systems manual, F-5061
2. ASTM International:
	1. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
	2. ASTM F1869- Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
	3. ASTM F2170 - Standard Test Method for Determining Relative Humidity In Concrete Floor Slabs Using in situ Probes ASTM C348 Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars.
	4. ASTM F3010 - Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings.
	5. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
	6. ASTM C1583 - Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension
	7. ASTM D2369 – Standard Test Method for Volatile Content of Coatings

### **1.04 SYSTEM DESCRIPTION**

1. Administrative Requirements
	1. Pre-installation Meeting: Conduct an on-site pre-installation meeting to verify project requirements, substrate conditions, manufacturer’s installation instructions and manufacturer’s warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.
2. Sequencing and Scheduling
	1. Install accessories after the other finishing operations, including painting, have been completed. Close spaces to traffic during the installation of the flooring.

### **1.05 SUBMITIALS**

1. Submit shop drawings, and manufacturer's technical data, installation instructions (latest edition of Armstrong Flooring Guaranteed Installation Systems manual, F-5061) for accessories.
2. Submit Safety Data Sheets (SDS).
3. Closeout Submittals: Submit the following:
	1. Operation and Maintenance Data: Operation data for installed products in accordance with Division 1 Closeout Submittals (Operation Data) Section.
	2. Warranty: Warranty documents specified herein

### **1.06 QUALITY ASSURANCE**

1. Single-Source Responsibility: provide types of flooring and accessories supplied by one manufacturer, including moisture mitigation systems, primers, leveling and patching compounds, and adhesives.
2. Select an installer who is experienced and competent in the installation of Armstrong Flooring subfloor preparation products.
	1. Engage installers certified as Armstrong Commercial Flooring Certified Installers
	2. Confirm installer's certification by requesting their credentials

### **1.07 DELIVERY, STORAGE & HANDLING**

1. Deliver materials in accordance with manufacturer's written instructions.
	1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact and product name and manufacturer clearly visible and sized to suit project.
2. Store materials protected from exposure to harmful environmental conditions, clean, dry, frost-free and at recommended temperature and humidity levels.
	1. Store products in a dry area with temperature maintained between 50° and 85° F (10° and 29° C) and protect from direct sunlight.

**1.08 EXISTING CONDITIONS**

1. Apply moisture mitigation system only when substrate temperature is greater than 50 degrees F.

### **1.09 EXTENDED SYSTEM LIMITED WARRANTY**

1. Resilient Flooring System: Submit a written warranty executed by the manufacturer, agreeing to repair or replace system (subfloor preparation products, adhesive, and floor covering) that falls within the warranty period.
2. Limited Warranty Period: 10 years on top of the Resilient Flooring Limited Warranty
3. [S-462 Seal Strong™ Two-Part, Epoxy Based Moisture Mitigation System] [S-464 Prime Strong™ acrylic primer for porous substrates]
4. The installation of an Armstrong Flooring product along with the recommended Armstrong Flooring adhesive, as well as any one of the Strong System subfloor preparation products listed above, provides 10 additional years of limited warranty coverage. The Strong System limited warranty covers the installation integrity for the length of the flooring product warranty plus 10 years. In order to qualify for the Strong System Warranty, any subfloor preparation product needed for an installation must be an Armstrong Flooring product.
5. For the System Limited Warranty to be valid, this product is required to be installed using the appropriate Armstrong Flooring Guaranteed Installation System. Product installed not using the specific instructions from the Guaranteed Installation System will void the warranty.
6. When Armstrong Flooring Strong System subfloor preparation products are used with other manufacturers’ floor coverings, adhesives, or other subfloor preparation products, Armstrong Flooring warrants our products to be free from manufacturing defects from the date of purchase through the limited warranty period of 15 years.

### **PART 2 PRODUCTS**

### **2.01 MANUFACTURER**

1. Resilient sheet flooring, wall base, adhesives and subfloor preparation products and accessories:
2. Armstrong Flooring Inc., 1770 Hempstead Rd., Lancaster, PA 17605, [www.armstrongflooring.com/commercial](http://www.armstrong.com/commflooringna/)
3. Manufacturer must have a headquarters in the United States of America

### **2.02 PERFORMANCE REQUIREMENTS**

### Epoxy Moisture Mitigation System: Meet or exceed the following values for material cured at 70° F+/-3°F (21° C+/-2°C) and 50% +/-5% relative humidity:

### Application: Barrel Mix or Pump

### Flow Time: 10 minutes

### Walkable: 2 to 3 hours

### Compressive Strength: Minimum 5,500 psi (385 kg/cm2) at 28 days, ASTM C109M.

### Flexural Strength: 1,200 psi (84 kg/cm2) at 28 days, ASTM C348.

### VOC: 0

### **2.03 MOISTURE VAPOR EMISSION CONTROL**

1. For high moisture concrete provide Armstrong S-462 Seal Strong™ Two-Part, Epoxy Based Moisture Mitigation System.

### **2.04 PRIMER FOR CEMENT BASED SELF-LEVELING COMPOUND**

1. [For non-porous substrates, provide S-465 Prime Strong™ acrylic primer for non-porous substrates].

### **PART 3 EXECUTION**

### **3.01 MANUFACTURER’S INSTRUCTIONS**

1. Compliance: Comply with manufacturer’s product data, including technical bulletins, product catalog, installation instructions, and product carton instructions for installation and maintenance procedures as needed

### **3.02 EXAMINATION**

1. Site Verification of Conditions: Verify substrate conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions (i.e. moisture tests, etc.).
2. Ensure substrate has been profiled to achieve Concrete Surface Profile (CSP) 3.
3. Examine subfloors prior to installation to determine that surfaces are smooth and free from cracks, holes, ridges, and other contaminates that might prevent bond.
4. Report conditions contrary to contract requirements that would prevent a proper installation. Do not proceed with the installation until unsatisfactory conditions have been corrected.
5. Failure to call attention to defects or imperfections will be construed as acceptance and approval of the subfloor. Installation indicates acceptance of substrates with regard to conditions existing at the time of installation.

### **3.03 PREPARATION**

1. Mechanically prepare substrate and repair areas to smooth finish using repair compound and methods in accordance with the Armstrong Flooring Guaranteed Installation Systems manual, F-5061.

### **3.04 MIXING**

1. Mix in accordance with the Armstrong Flooring Guaranteed Installation Systems manual, F-5061.

### **3.05 APPLICATION**

1. Apply in accordance with the Armstrong Flooring Guaranteed Installation Systems manual, F-5061.
	1. Ensure epoxy moisture mitigation components are thoroughly mixed before use.
	2. Immediately after spreading with the squeegee, saturate short nap roller and back roll to evenly distribute epoxy film over surface.
		1. Avoid puddles.
	3. A sand broadcast is required where Level Strong will be applied over ¼” thick. Where required, sand broadcast must proceed while the Seal Strong is still in a fresh state (maximum 20 minutes).
	4. Prime substrate in accordance with the Armstrong Flooring Guaranteed Installation Systems manual, F-5061, before applying underlayment.

###  **CLEANING**

1. Immediately clean tools in water.
2. Leave work area clean at end of each day.
3. Upon completion, remove surplus materials, trash, tools and equipment.
4. Collect recyclable waste and dispose of at appropriate recycling facilities.

### **3.07 PROTECTION**

1. Protect applied materials from damage during construction.
	1. Place temporary wood panels over finished cement underlayment work as directed by Architect or General Contractor.
2. Repair or replace adjacent materials damaged by application of cement underlayment.

**END OF SECTION**