SECTION 09 61 00

MOISTURE VAPOR EMISSION CONTROL

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\*\* NOTE TO SPECIFIER \*\* HALEX Corporation; Flooring installation solutions.
This section is based on the products of HALEX Corporation, which is located at:
4200 E. Santa Ana St. Suite A
Ontario, CA 91761
Toll Free Tel: 800-576-1636
Tel: 909-622-3537
Fax: 909-622-3047
Email: [request info (jchambers@halexcorp.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=HALEX+Corporation&coid=48615&rep=&fax=909-622-3047&message=RE:%20Spec%20Question%20(09610hal):%20%20&mf=)
Web: [www.halexcorp.com](http://www.halexcorp.com)
 [ [Click Here](http://www.arcat.com/arcatcos/cos48/arc48615.html) ] for additional information.
HALEX Corporation is the world's leading manufacturer of flooring installation products. Our underlayments, carpet tack strips and seam tapes keep flooring looking great for years. We're proud to be home to strong brands such as ORCON Products, Carpet Installation Tools and Seam Tapes for the Professional and VersaShield Rolled Moisture Barrier for Concrete Floors, which protects against extreme moisture levels in concrete slabs. Our goal is to make the job of installing flooring easier and faster by delivering quality products and services at fair prices to our customers.
HALEX is headquartered in Ontario, California. Two other U.S. Manufacturing and Distribution Centers are in Calhoun, GA and Bensalem, PA. Halex operates a factory complex in Suqian, Jiangsu Province in China.

1. GENERAL
	1. SECTION INCLUDES
		1. Pre-formed moisture suppression membrane installed over concrete subfloor as a floor covering underlayment.
	2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 01 00 - Maintenance of Concrete.
		2. Section 09 30 00 - Tiling.
		3. Section 09 75 00 - Stone Facing.
		4. Section 09 64 19 - Wood Composition Flooring.
		5. Section 09 65 13 - Resilient Base and Accessories. (SVT/ LVT/ VCT )
		6. Section 09 68 16 - Sheet Carpeting.
		7. Section 09 68 16 - Sheet Carpeting.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM):
			1. ASTM D2646-05- Standard test Methods for Backing Fabric Characteristics of Pile Yarn Floor Coverings.
			2. ASTM D3273-00- Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
			3. ASTM D5729-97 (2004)e1 - Standard Test Method for Thickness of Nonwoven Fabrics.
			4. ASTM E96-05 - Standard Test Methods for Water Vapor Transmission of Materials.
			5. ASTM F710 - Standard Practice Preparing Concrete Floors.
			6. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: Manufacturer's data indicating product physical characteristics, performance criteria, and limitations of use, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
		3. Warranty Registration: Manufacturer's warranty registration with concrete subfloor moisture test results and building ambient air temperature and relative humidity test results.
	2. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.
		2. Installer Qualifications: Minimum 2 year experience installing similar products.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
			1. Finish areas designated by Architect.
			2. Do not proceed with remaining work until workmanship is approved by Architect.
			3. Refinish mock-up area as required to produce acceptable work.
	1. PRE-INSTALLATION MEETINGS
		1. Convene minimum two weeks prior to starting work of this section.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
		2. Handling: Handle materials to avoid damage.
	3. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
	4. SEQUENCING
		1. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
	5. COORDINATION
		1. Coordinate the work of this section and directly related sections with concrete floor construction and repair.
		2. Coordinate the work of this section and directly related sections with finish flooring work.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: HALEX Corporation, which is located at: 4200 E. Santa Ana St. Suite A; Ontario, CA 91761; Toll Free Tel: 800-576-1636; Tel: 909-622-3537; Fax: 909-622-3047; Email: [request info (jchambers@halexcorp.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=HALEX+Corporation&coid=48615&rep=&fax=909-622-3047&message=RE:%20Spec%20Question%20(09610hal):%20%20&mf=); Web: [www.halexcorp.com](http://www.halexcorp.com)

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* VersaShield Rolled Moisture Barrier is a moisture suppression system for concrete floors. VersaShield protects against moisture in concrete up to 95% RH (relative humidity) and VersaShield MBX protects against moisture up to 99% RH. Delete product not required.

* 1. MOISTURE SUPPRESSION SYSTEM FOR FLOORING PRODUCTS
		1. Product: VersaShield 95 Flooring Underlayment as manufactured by HALEX Corporation.
			1. Material: Free-standing, dimensionally stable, 4-ply composite product, engineered as a moisture suppression membrane to be used on concrete floors where high moisture exists.

2.Dimensions: 144 feet long by 5 feet wide (43.9 m by 1.52 m) standard roll.

* + - 1. Mold, Mildew and Fungal Resistance, ASTM D3273: 10 rating.
			2. Moisture Vapor Transmission rate, ASTM E96: Less than 0.01 g/hr/ sq m.
		1. Product: VersaShield MBX Flooring Underlayment as manufactured by HALEX Corporation.
			1. Material: Free-standing, dimensionally stable, 4-ply composite product, engineered as a moisture suppression membrane to be used on concrete floors where high moisture exists.

2.Dimensions: 144 feet long by 5 feet wide (43.9 m by 1.52 m) standard roll.

* + - 1. Mold, Mildew and Fungal Resistance, ASTM D3273: 10 rating
			2. Moisture Vapor Transmission rate, ASTM E96: Less than 0.01 g/hr/ sq m
		1. Accessories: VersaShield Tape as manufactured by HALEX Corporation.
			1. Application: Joining of moisture suppression underlayment seams.
			2. Description: Membrane manufacturer's moisture suppression tape with pressure sensitive adhesive.
			3. Properties: Moisture suppression and adhesion per manufacturer's specifications.

\*\* NOTE TO SPECIFIER \*\* Versashield 95 tape. Delete if not required.

* + - 1. Supplied as: 2 inches by 180 feet (51 mm by 54.9 m) rolls.

\*\* NOTE TO SPECIFIER \*\* Versashield MBX tape. Delete if not required.

* + - 1. Supplied as: 2-1/2 inches by 180 feet rolls (63.5 mm by 54.9 m) and 4 inches X 100 feet (102 mm by 30.5 m) double-sided rolls.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
		3. Concrete Subfloor:
			1. Verify internal RH of the concrete according to ASTM F-2170.
			2. Record readings and submit with manufacturer's warranty registration.

\*\* NOTE TO SPECIFIER \*\* Versashield 95. Delete if not required.

* + - 1. Do not install if relative humidity levels within the concrete exceed 95% RH.

\*\* NOTE TO SPECIFIER \*\* Versashield MBX. Delete if not required.

* + - 1. Do not install if relative humidity levels within the concrete exceed 99% RH.
	1. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	2. PREPARATION
		1. Concrete Sub Floor:
			1. Prepare floor according to manufacturer's instructions including removal of existing materials on concrete surface, grinding protrusions flat, and filling low spots with water-resistant cementitious patching or leveling compound. Patch cracks greater than 1/8 inch (3.2 mm) width using manufacturer's approved crack mending compound.
			2. Remove debris and excessive dust from the surface.
	3. UNDERLAYMENT INSTALLATION
		1. Install in accordance with manufacturer's instructions.
		2. Install moisture suppression membrane with smooth film side facing concrete slab.
		3. Install in accordance with membrane manufacturer's current written installation instructions.
		4. If any jobsite condition interferes with compliance with manufacturer's instructions, contact manufacturer and obtain written job-specific procedures. Notify Architect or Owner's representative describing the interfering jobsite condition and manufacturer's job-specific instructions.
	4. FLOORING INSTALLATION
		1. Adhesives: Apply adhesive to mineral-coated surface of moisture suppression membrane. Use only water-based adhesives. Do not use solvent-based adhesives.
		2. Protection: Protect moisture suppression membrane from damage during flooring installation. Do not tear, rip, puncture, or delaminate membrane when applying trowel-on adhesive. Repair damaged areas according to membrane manufacturer's instructions before flooring installation. Provide continuous, intact moisture suppression membrane under entire designated flooring area.

\*\* NOTE TO SPECIFIER \*\* Delete flooring type not required.

* + 1. Laminate or Engineered Wood: Install to manufacturer's instructions for floating floors.
		2. Broadloom Carpet and or Tile Carpet: Adhere directly to moisture suppression membrane using carpet manufacturer's recommended adhesive.
		3. Vinyl Tile: Adhere directly to moisture suppression membrane using tile manufacturer's recommended adhesive.
	1. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION