

GUIDE SPECIFICATION

Vaporseal™

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Section 07260
Vapor Retarders
or
Section 09601
Concrete Floor Sealer

Part 1 – General

1.1 Section includes

- A. Furnish all labor, materials, tools and equipment as necessary to perform installation of Concrete Floor Sealer on new and/or existing concrete slabs as shown on drawings and as specified in this section.
- B. Repairs and preparation of concrete floors.
- C. Related Sections: (Delete or add necessary Sections)
 - 1. See section 09620 – Specialty Flooring.
 - 2. See section 09630 – Masonry Flooring.
 - 3. See section 09640 – Wood Flooring.
 - 4. See section 09650 – Resilient Flooring.
 - 5. See section 09680 – Carpet.

1.2 References

- A. ASTM F 1869 – Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride; 1998.
- B. ASTM E 96 – Standard Test Methods for Water Vapor Transmission of Materials; 1995.
- C. ASTM D 4541 – Pull-Off Strength of Coatings; 1995, Modified.

1.3 Submittals

- A. General:
Submit manufacturer's certification that proposed materials, details and systems as indicated and specified fully comply with manufacturer's details and specifications. If any portion of Contract Documents do not conform to manufacturer's standard recommendations, submit notification of portions of design that are at variance with manufacturer's specifications.
- B. Product Data:
 - 1. Submit manufacturer's literature, installation instructions and MSDS for each product.
- C. Concrete Slab Test Results:
Submit slab moisture test results. Testing conducted in accordance with ASTM F1869

1.4 Quality Assurance

- A. Manufacturer Qualifications:
 - 1. Company specializing in manufacturing floor sealing and floor leveling materials that will upon application and inspection of installation, provide a ten year warranty that moisture emission will not exceed three pounds per 1000 square feet per 24 hours or manufacturer will repair or replace floor.
- B. Installer Qualifications:
 - 1. Trained and licensed by the product manufacturer or documented experience acceptable to the product manufacturer.

1.5 Delivery, Storage and Handling

- A. Deliver and store in a dry, well ventilated area at minimum 50 deg. F (10 deg C) and maximum 90 deg F (32 deg C).
- B. Deliver materials in manufacturer's unopened containers, fully identified with brand, type, grade, class and all other qualifying information. Provide Materials Safety Data Sheets for each product.

1.6 System Requirements

- A. Coordinate floor sealing installation with other trades.
- B. Provide materials and accessories in timely manner so as not to delay work.

1.7 Project Conditions

- A. Maintain surfaces to be sealed and surrounding air temperature at not less than 50 deg F. (10 deg C).
- B. Exercise caution when temperatures exceed 90 deg F. (32 deg C).

Part 2 – Products

2.1 Manufacturers

- A. Approved Manufacturers: Dependable Chemical Company, Inc. PO Box 16334 Rocky River, OH 44116-0334 Phone: (800) 227-3434 Fax (440) 333-0070.
- B. Requests for substitutions will be considered only if submitted to the architect/engineer in writing and must include substantiation of product performance.

2.2 Materials

- A. Concrete Floor Sealer – two-component, moisture tolerant, high density, low odor epoxy based product with the following characteristics:
 - 1. Product: VAPORSEAL™
 - 2. Component – A and B: Precise blend of white and yellowish liquid.
 - 3. Bond/Adhesion: 110 psi (0.8 Mpa) at 5 day old concrete
(ASTM D-4541, Modified) 550 psi (3.8Mpa) at 28 days on moist concrete
580 psi (4.0 Mpa) at 28 days on dry concrete
 - 4. Permeance: (ASTM E-96) 0.83 perms (4.76E-08 grams/PA*s*m²)
[When applied to control with 15.54 perms
(8.89 E-07 grams/PA*s* m²)]

Part 3 – Execution

3.1 Examination

- A. Examine all construction substrates and conditions under which concrete floor sealer material is to be installed. Do not proceed with the concrete floor sealer installation until unsatisfactory conditions are corrected.

3.2 Preparation

- A. Protect adjacent surfaces not designated to receive concrete floor sealer.
- B. Substrate preparation:
 - 1. Remove existing floor coverings, coatings, adhesives curing compounds, efflorescence, dust, grease, laitance, etc down to bare concrete, with steel

shot blasting, high pressure water or abrasive (sand) blasting. Acid etching is not recommended.

2. Provide surface profile ICRI CSP 2 – 3 (ICRI, Sterling, VA, Guideline No. 03732.) on smooth troweled slabs.
3. VAPORSEAL should have intimate contact with the concrete. However, if deteriorated areas exist that require repair/replacement, repairs shall be completed with material unaffected by water. Floor irregularities should normally be completed over sand-filled VAPORSEAL with a suitable leveling material like SKIMFLOW ES or SKIMCRETE XL.
4. Carefully rinse all the surfaces to be treated with clean water, leave no standing water.

3.3 Installation

- A. Mix concrete floor sealer material in proportions recommended by manufacturer.
- B. Apply concrete floor sealer material in quantities and in manner set forth in manufacturer's full written directions, technical bulletins and recommendations.

VAPORSEAL™ Application Rates and Yield of 2.1 gal. (8.1L) kit				
Part 1. Moisture vapor emission rate*	No. of coats	Part 1. Application rate	Part 1. Yield per 2.1 gal. kit	Part 1. Approx Thickness
lb/24H / 1000 ft ²		ft ² /gal.	ft ²	mils
0-10	1	115	240	14
•10-15 • New Concrete (min. 7 days old) • Oil Contaminated slab.	1	95	200	16
15-25	1	75	160	21
*(tested in accordance with ASTM F1869) Walls: contact our technical dept. Note: all values are theoretical. Application thicknesses are approximate. Some variations may apply due to porosity and absorption of substrate				

- C. Spread using roller or squeegee to the still moist or dry substrate, and carefully scrub it into the pores with a long handled brush or broom. Follow with a roller to achieve a uniform coverage.
- D. Broadcast clean, dry, fresh water washed and dried #20 silica sand (0.5 – 1.0 mm) at a rate of 30 lb./100 SF (1.5 KG/m²) into the fresh concrete floor sealer where a subsequent top coating (epoxy, cement-based topping or underlayment) follows.
- E. Where specified install Dependable leveling course as per manufacturer's directions and recommendations.
- F. Where specified install floor covering as per manufacturer's directions and recommendations.

3.4 Acceptance

- A. Remove left over materials and any foreign material resulting from the work from the site.
- B. Clean adjacent surfaces and materials.

END OF SECTION