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## **FIVE YEAR SPECIFICATION FOR VFI-608 FOR BELOW-GRADE AND SUBMERGED WALLS**

### **1 GENERAL:**

#### **1.01 General System Description**

- A.** This specification is intended for the application of VFI-608 below-grade system to bare masonry or primed walls.
- B.** Specifications here include guidelines for preparation, and coating of the masonry or primed surface. This is a general installation guide specification and is not a project-specific specification. It is the responsibility of the owner, project manager and contractor to ensure that this general installation guide is followed when work pertains to the project.
- C.** A Volatile Free, Inc. Technical Representative shall approve in writing any material substitutions, deviations from and/or addendums to this specification.

#### **1.02 Contractor to:**

- A.** Provide all labor and materials, equipment and accessories necessary to repair, clean and prepare existing surfaces to receive VFI-690 Waterproofing Primer. Install Volatile Free, Inc.'s coatings in accordance with this specification and manufacturer's instructions. Reference the following sections for more detailed information.
  - 1. Environmental requirements (1.06)
  - 2. Quality Preparation Program (1.07)
  - 3. Preparation of the surface to receive work. (3.01-3.02)
  - 4. Install Below-Grade Waterproofing System. (3.03 - 3.04)
  - 5. Warranty (5.0)

#### **1.03 Approved Materials and Contractors:**

- A.** The contractor and materials associated with the project shall be used only if approved by VFI and Owner.
- B.** VFI shall be a single source of the waterproofing system.
- C.** The contractor's qualifications and equipment must be approved by VFI.
- D.** Unspecified materials shall be submitted to the architect/ owner for approval prior to the bid date. In requesting approval, a letter of certification must be signed by an officer of the manufacturer, stating that the alternative material is equal to or better than the specified product. The manufacturer shall have a minimum of five years manufacturing experience.

**1.04 Submittals:**

**A. Manufacture:**

1. VFI's published technical data, and SDS on all products to be used on project.
2. Contractor's certification certificate issued prior to bid date from VFI.

**1.05 Product Delivery, Storage, and Handling:**

- A.** Deliver VFI materials in unopened containers with VFI labels affixed. Include the following on the label of each container: Manufacturer's name, product name, product type, lot number, mixing instructions, and precautions.
- B.** Contractor shall have materials delivered in sufficient quantities so as not to cause delays in the work.
- C.** Contractors shall be responsible for storage and protection of all materials required. Materials shall be stored in a manner so as not to exceed the VFI specified temperature limitations. (see product label or data sheet) In all cases, the storage and handling of materials shall conform to the requirements of VFI and the applicable safety regulatory agencies.
- D.** It is the responsibility of the contractor to calculate and add a loss factor due to wind, surface profile and overspray.

**1.06 Environmental Requirements:**

- A.** Install all materials in strict accordance with all published safety, weather and temperature precautions given by VFI.
- B.** The contractor is to take precautions to protect this building project, other adjacent facilities and property.
- C.** Do not install coating materials under the following conditions:
1. When surfaces are wet or rain is imminent
  3. Do not install VFI-608 when the temperature is below 50° F.

**1.07 Quality Preparation Program:**

- A.** All products must be mixed with proper equipment on the day of application. See product label or Product Data Sheet for instructions.

**2 PRODUCTS:**

**2.01 Materials:**

- A.** All products listed are manufactured, supplied, or approved by VFI of Brookfield, Wisconsin.
1. Wash: VFI-1009 Cleaning Concentrate
  2. Rust Primer: VFI-1074
  3. Crack Repairs and Sealer for Through-Wall Penetrations: VFI-630 Acrylic Flashing Grade

**4. Coating: VFI-680 Waterproofing Slurry**

This coating, shall meet the following mean technical requirements:

<b>a.</b> Solids:	by Volume	Liquid-39%, Slurry- 63%
<b>b.</b> Tensile:	ASTM C-190	775 +/- 50 psi
<b>c.</b> Compressive Strength	ASTM C-190	5700 +/- 300 psi
<b>d.</b> Flexural Strength	ASTM C-348	1835 +/- 100
<b>e.</b> Shear Bond Adhesion	ASTM C-190	550 +/- 50 psi
<b>f.</b> Abrasion Resistance	ASTM D-4060	<36mg loss
<b>g.</b> Impact Strength	ASTM G-14	>80 inch-pounds
<b>h.</b> Hardness	ASTM D-1474	>16 KHN
<b>i.</b> Permeance		Class III vapor retarder

**2.02 Other Materials Required:**

- A.** All other materials shall be approved by VFI as per Section 1.04, A.

**3 EXECUTION:**

**NOTE:** Care must be taken to ensure that the substrate is dry and properly prepared. The owner and/or contractor must correct any defect in the condition of the existing substrate prior to the coating, otherwise, these defects may adversely affect the condition of the coating over time, necessitating maintenance and/or repair and affecting the warranty. The contractor is responsible in making sure the existing substrate is sound.

**3.01 Surface Preparation:**

- A.** All surfaces shall be clean and dry, and free of any dirt, dust, oil, surface chemicals or other contaminants which may be detrimental to optimum adhesion of the coating.
- B.** The existing surface is to be repaired where necessary.

**3.02 Surface Wash:**

**NOTE: Allow surface to dry before applying VFI-1009 Cleaning Concentrate**

- A.** VFI-1009 Cleaning Concentrate should be diluted at a 1:10 ratio with water. Apply the diluted cleaning solution to the dry substrate under low pressure using a Hudson type agricultural sprayer **at the rate of 2,000 sq. ft. per gallon of VFI-1009**. Allow the solution to stand for a minimum of 15 minutes. Extremely stubborn areas may require treatment with a more concentrated dilution. Power wash the surface with a minimum 2,000 psi power washer.
- B.** Repeat rinsing as required to remove all cleaning solution. Allow the substrate to completely dry prior to the application of any coating materials.
- C.** Use concentrated chlorine solution to treat areas of mildew, fungus, or algae.

D. All cleaning agents must be rinsed off of and allowed to dry before proceeding.

**NOTE: It is crucial to ensure that the preexisting substrate is clean and dry prior to coating with the VFI system.**

**3.03      Repair of Surface Defects:**  
Seal all cracks over 1/16", holes, voids, through-wall penetrations, and other defects in the existing substrate using VFI-630 Flashing Grade Acrylic Coating.

**One gallon of VFI-630 will repair approximately 150 lineal feet of cracks.**

**3.04      Coating Application:**  
**A.** Using a drill mixer, mix VFI-608 with water and type II/ III portland cement using the following recipe:

- 1 part VFI-608
- 1 part cool water
- 3 parts portland cement

**B.** A light application of water to the masonry surface may be necessary prior to applying VFI-608 waterproofing system on hot and or sunny days.

**C.** Apply first coat of waterproofing slurry and embed fabric into still wet slurry coat followed by a second coat of slurry. Allow to dry.

**D.** Apply a final coat of waterproofing slurry over entire area. Allow to cure for at least 48 hours prior to backfilling.

- \* Hang fabric vertically (wallpaper style) ensuring that 4 inches of the system is installed onto the footer/slab.
- \* Overlap where fabric meets fabric by 4 inches.
- \* Extend material a minimum of 4 inches above grade

**One gallon of VFI-608 will waterproof approximately 50 sq. ft. (combined coverage of all 3 coats).**

**NOTE: VFI recommends adding a loss factor. It is the responsibility of the contractor to calculate the correct amount of material.**

**4      FIELD QUALITY CONTROL:**

**4.01    Inspection:**

**A. Defects:** There shall be no delamination, lifting blisters, pinholes, voids, or membrane defects of any kind.

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**SUSTAINABILITY.**  
**DURABILITY.**  
**FLEXIBILITY.**

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**B. Variations:** Any variations from specified procedures or limits found by the contractor, representatives of VFI, or the owner, shall be immediately corrected by the contractor at their own expense.

**4.02 Job Site Clean up**

**A.** Clean up all debris, excess materials and equipment and remove from site.

**5 WARRANTY:**

**5.01 Requirements:**

**A.** VFI warrants that the material supplied will meet or exceed physical properties as published.

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**WARRANTY SPECIFICATION/AFFIRMATION OF SIGNATURES**

**Type of Warranty:**

- A. Volatile Free, Inc. Five Year Warranty covering material shall be issued within thirty (30) days of final payment and successful roof inspection.

**Substrate selected:**

**Application rate required:**

**Application method:**

**Volatile Free Inc.**

Printed Name:

\_\_\_\_\_

Title:

\_\_\_\_\_

Date Approved:

\_\_\_\_\_

Warranty Project #

\_\_\_\_\_

**Applicator**

Printed Name:

\_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City, State: \_\_\_\_\_

Telephone: \_\_\_\_\_

Please sign and date below to acknowledge that you read and understand the FIVE YEAR SPECIFICATION FOR VFI-690.

PLEASE SEND THIS SIGNED COPY TO VOLATILE FREE, INC.; 19500 JANACEK COURT, BROOKFIELD, WI 53045 OR FAX: 262-787-0500

\_\_\_\_\_  
Signature

\_\_\_\_\_  
DATE

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