

## FloroEster U Primer Vinyl Ester Primer

**Product Description:** FloroEster U Primer is a specially formulated, low viscosity, catalyzed, vinyl ester resin that exhibits exceptional resistance to rust and undercutting. When applied to concrete or steel substrates, the primer effectively seals and strengthens prepared surfaces, improving the adhesion of subsequent FloroEster coatings.

**Typical Uses, Applications:** FloroEster U can be used on properly prepared steel or concrete surfaces prior to application of FloroEster VE or FloroEster NVE in facilities such as:

- Chemical and waste treatment plants
- Pulp and paper mills
- Textile mills
- Metal finishing shops
- Power generation facilities

### Product Advantages:

- Easy to apply with roller or brush
- Excellent adhesion to concrete and steel
- Incorporates FDA compliant resin

### Packaging:

- FloroEster U Primer, Clear  
4 Gal (15.1 L) Kit  
50 Gal (189.27 L) Pail Set

**Storage:** All containers should be stored at 50° F (10° C) to 95° F (35° C), be kept tightly sealed and out of direct sunlight.

**Shelf Life:** At storage temperature of 70° F (21° C) the shelf life from date of manufacture is:

- FloroEster U Primer Part A – 6 months
- FloroEster U Primer Part B – 12 months

### Cured Physical Properties

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Density	ASTM D1475	8.66 +/- 0.25 lbs/gal (1.04 kg/L)
Viscosity (Brookfield)	ASTM D2196	350 +/- 50 cps
Tensile Strength	ASTM D638	2,500 psi (17 MPa)
Adhesion Strength Concrete	ASTM D7234	Concrete Failure
Adhesion Strength Steel	ASTM D7234	1,000 psi (6.89 MPa)

### Special Considerations:

- **REQUIRED Product Recommendation Form**—Carefully complete attached form and submit to Florock headquarters prior to product use. Failure to do so could effect warranty.
- **Lead Time**—5-10 Working days prior to shipping.
- **Returns**—Because FloroEster is made-to-order, returns are not accepted.

**Chemical Resistance:** Please see FloroEster Chemical Resistance Chart for details.

**Coverage:** Varies depending on system

### Surface Preparation:

**Concrete**—The concrete shall have a minimum Compressive Strength of 3,500 psi (25 N/mm<sup>2</sup>), in addition to a minimum Surface Strength of 200 psi (1.4 N/mm<sup>2</sup>) for coatings and 300 psi (2.1 N/mm<sup>2</sup>) for linings. It must be thoroughly cured and dry at the time of application. Prepare the concrete substrate in accordance with the Florock Preparation of Concrete Guide, paying special attention to mechanical prep and MVT information. Consult FloroProof System Data Sheet for details on MVT parameters and mitigation.

Carbon Steel—Abrasive blast to “White Metal”, in accordance with SSPC SP-5, NACE Specification #1 or SA 3. After blast cleaning, prime the steel surface before the formation of any rust bloom. Contact your local Florock representative for more details.

*Note: FloroEster should not be applied when substrate temperature is above 90° F (32.2° C) or below 50° F (10° C), or when within 5.0° F (2.5° C) of the dew point.*

**Application—Thin Film, Resin Only System or Broadcast System:**

**1. Important:** Complete the FloroEster Product Recommendation Form attached. Submit to Florock headquarters before proceeding

**2. Primer Application:** Once surface preparation is complete, apply FloroEster U Primer. In a clean, dry container, pour in 1.0 gallon (3.78 L) FloroEster U Primer Part A. Add 2.0 ounces (0.5 dL) Part B Hardener and mix thoroughly for 3 minutes using a ½” (12.7 mm) drill motor and a mixer with cross type blade or paddle whip. Carefully noting the working time limitations, transfer the mixture from the batch container to a transport container. Remix and pour entire mix from the transport container onto the floor immediately. Retaining mixture in the bucket will shorten the pot life. Using a 1/8” (3.1 mm) V-notched squeegee or 3/8” (9.5 mm) mohair type roller, apply primer at a rate of 160-200 SF/gallon (3.9-4.9 m<sup>2</sup>/L) over concrete or at a rate of 250-300 SF/gallon (6.1-7.3 m<sup>2</sup>/L) over steel. Backroll with a 3/8” (9.5 mm) nap roller immediately after spreading. Allow primer to cure before applying next coat.

*Note: The cure time will vary with conditions. Allow a minimum of 2 hours and a maximum of 7 days before next step.*

**Application—Over a New, Fully Broadcast FloroCrete Coating:**

1. Examine the FloroCrete coating to ensure that it is well-bonded to the concrete, has cured for a minimum of 24 hours and is within the recoat window.
2. Clean the entire floor thoroughly of any loose broadcast material.

<b>Blended Components – Thin Film FloroEster U Primer</b>	
Blend Ratio A/B	128: 2
Induction Time	None
Maximum Working Time	60 min. at 50° F (10°C) 40 min. at 70° F (21°C) 20 min. at 90° F (32°C)
Recommended Spread Rate Concrete Steel	160-200 SF/Gal (3.9-4.9 m <sup>2</sup> /L) 250-300 SF/Gal (6.1-7.3 m <sup>2</sup> /L)
V.O.C.	233 g/L
N.V.V.	70%*
N.V.W.	75%*
Minimum Recoat	8 Hours at 50° F (10°C) 4 Hours at 70° F (21° C) 2 Hours at 90° F (32° C)
Maximum Recoat	7 Days
Return to Service	72 Hours at 50° F (10°C) 48 Hours at 70° F (21° C) 24 Hours at 90° F (32° C)
Service Temperature	Dependent Upon Succeeding Coating/Lining System
Clean-Up Solvent	Acetone

\*Vinyl Ester resin systems are subject to monomer loss and material shrinkage during application and curing. Actual percent solids will also vary depending upon fillers used, temperature, and air movement.

3. Follow steps 1 and 2 above, then apply subsequent coatings in accordance with product technical data sheets.

**Maintenance:** See Florock Care and Maintenance Guide. Florock floors never need waxing.

**Please read Safety Data Sheets before using product.**

**DISCLAIMER:** All preceding statements and recommendations are based on experience we believe to be reliable. The use or application of these products being beyond the control of the Seller or Manufacturer, neither Seller nor Manufacturer make any warranty, expressed or implied, as to results or hazard from its use. The suitability, risk and liability whatsoever of a product for an intended use shall be solely up to the User.

## PRODUCT RECOMMENDATION FORM FOR CONCRETE SUBSTRATES

CUSTOMER \_\_\_\_\_ REQUESTED BY \_\_\_\_\_

PROJECT NAME \_\_\_\_\_

TELEPHONE/ EMAIL \_\_\_\_\_

DATE/ LOCATION \_\_\_\_\_

CHEMISTRY \_\_\_\_\_

(Name of chemicals, % concentration) \_\_\_\_\_

PROJECT SIZE (Surface Area, Dimensions) \_\_\_\_\_

**EXPOSURE**

Continuous \_\_\_\_\_ Temporary Storage \_\_\_\_\_ Frequent Splash/Spill \_\_\_\_\_

Fumes \_\_\_\_\_ Occasional Intermittent \_\_\_\_\_ Thermal Shock \_\_\_\_\_

Hours Exposure \_\_\_\_\_ Weeks Exposure \_\_\_\_\_ Days Exposure \_\_\_\_\_

Other Explain \_\_\_\_\_

**FREQUENCY OF CLEAN UP**

Immediate \_\_\_\_\_ Within # hrs \_\_\_\_\_ Within 72 hrs \_\_\_\_\_

Other \_\_\_\_\_

**TEMPERATURE**

Normal Operating Temperature \_\_\_\_\_ °F Maximum Operating Temperature \_\_\_\_\_ °F Temperature Spikes \_\_\_\_\_ °F

**TEMPERATURE CYCLING**

Duration \_\_\_\_\_ hrs. \_\_\_\_\_ day \_\_\_\_\_ month  
 \_\_\_\_\_ min. Frequency \_\_\_\_\_ week \_\_\_\_\_ year

**TYPE OF STRUCTURE**

Tank \_\_\_\_\_ Floor \_\_\_\_\_ Loading/Unloading \_\_\_\_\_ Secondary Containment \_\_\_\_\_  
 Trench \_\_\_\_\_ Sump \_\_\_\_\_ Pit \_\_\_\_\_ Vessel \_\_\_\_\_ Wall \_\_\_\_\_  
 Process Area \_\_\_\_\_ Storage area \_\_\_\_\_ Structural \_\_\_\_\_ Equipment \_\_\_\_\_ Overhead \_\_\_\_\_

**STRUCTURE CONDITION**

New \_\_\_\_\_ Existing \_\_\_\_\_ Inside \_\_\_\_\_  
 Above Ground \_\_\_\_\_ Below Ground \_\_\_\_\_ Interior \_\_\_\_\_ Exterior \_\_\_\_\_ Outside \_\_\_\_\_  
**Concrete Condition** Good \_\_\_\_\_ Fair \_\_\_\_\_ Poor \_\_\_\_\_ Repair Needed \_\_\_\_\_  
 Existing \_\_\_\_\_  
 Vapor Barrier \_\_\_\_\_ Existing Sealer \_\_\_\_\_ Topping \_\_\_\_\_ Existing Coating \_\_\_\_\_ Existing Lining \_\_\_\_\_  
 Thermal Shock \_\_\_\_\_ Abrasion \_\_\_\_\_ Joints \_\_\_\_\_ Type of Joints \_\_\_\_\_  
 Heavy Traffic - towmotor \_\_\_\_\_ Heavy Traffic - steel wheel \_\_\_\_\_ Medium Traffic - rubber wheel \_\_\_\_\_ Medium Traffic - heavy foot traffic \_\_\_\_\_  
 Light Traffic - light carts \_\_\_\_\_ Light Traffic - foot traffic \_\_\_\_\_ Pallets - Wooden or plastic \_\_\_\_\_ Pallets - Steel \_\_\_\_\_

**OTHER CONDITIONS**

Crack-Bridging Required \_\_\_\_\_ Slip-Resistance Required \_\_\_\_\_ Cleanability Required \_\_\_\_\_ Hot Water Contact \_\_\_\_\_

COMMENTS & DETAILS \_\_\_\_\_  
 (Use back side for additional notes.) \_\_\_\_\_