

# SAUEREISEN

## SUBSTRATERESURFACER NO. F-121

SubstrateResurfacer No. F-121 by Sauereisen is a high strength substrate repair material and waterproofing barrier for prevention of inflow and infiltration in concrete or brick manholes. SubstrateResurfacer is portland cement-based and primarily specified for municipal wastewater environments where structural integrity needs to be restored.

### CHARACTERISTICS

- o Pumpable and sprayable.
- o Economical.
- o Moisture tolerant.
- o Applied by spincast/spray.
- o Safe to use, non-toxic.

### AREA PREPARATION

#### Temperature of Working Area

Maintain a temperature of 65°-85°F on air, Liquid, and Hardener components during mixing, application and cure.

The substrate should be maintained at 50°F to 80°F for 48 hours prior to beginning work.

At temperatures below 50°F, the application becomes more difficult and curing is retarded.

Above 85°F, the material working time decreases. It is recommended that the material components be stored in a cooler area prior to mixing.

### PHYSICAL PROPERTIES

(Quantified at seven days)

Bond strength (ASTM D-4541)	200 psi (14.1 kg/cm <sup>2</sup> )
Compressive strength (ASTM C-109)	6,500 psi (457.0 kg/cm <sup>2</sup> )
Density (ASTM C-20)	137 pcf (2.19 gm/cm <sup>3</sup> )
Flexural strength (ASTM C-580)	1,500 psi (105.5 kg/cm <sup>2</sup> )
Mix ratio	6.25 to 1
Tensile strength (ASTM C-307)	550 psi (38.7 kg/cm <sup>2</sup> )

Physical properties were determined on specimens prepared under laboratory conditions using applicable ASTM procedures. Actual field conditions may vary and yield different results; therefore, data are subject to reasonable deviation.

#### Surface Preparation

Surfaces should be made free of oil, grease, water, and other contaminants that may inhibit bond.

Concrete must be firm and structurally sound as specified by the architect/engineer.

Hydroblasting should be utilized to remove laitance, contaminants, or loose particles and to produce a clean hard surface. All standing surface water should be removed prior to applying SubstrateResurfacer No. F-121.

To ensure maximum adhesion and to prevent dehydration of No. F-121 at the substrate interface, the concrete should be thoroughly dampened with water prior to application. If concrete cannot be dampened or an unusual stress condition exists, a concrete bonding agent is recommended. Consult Sauereisen for recommendations.

### APPLICATION

#### Mixing

Mixing should be done mechanically with a slow speed mortar mixer or drill motor with a "Jiffy" type mixing blade to obtain a uniform consistency. The mixing equipment must be clean and free of contaminants.

Mix only as much SubstrateResurfacer as can be spun, cast or sprayed in 15-20 minutes. Do not retemper by adding more water and remixing. Material that has hardened due to delay in placing must be discarded.

## Installation

Using the RFI Material Pump RSP-200, apply a uniform coat to a minimum thickness of 1/4 inch.

The following equipment is typically used for rotary spray application of substrate resurfacing material:

**RFI Construction Products**  
**Division of Cangro Industries**  
**495 Smith Street**  
**Farmingdale, NY 22735-1186**  
**Contact: William Drudy**  
**Phone 631.752.8899**  
**Fax: 631.454.9155**

RFI Rotor/Stator Pump Model RSP-200.

Model PE-100-01 Pole Gun w/aluminum spray head for straight shot applications. Spincaster Nozzle SPN-500 w/internal air motor.

Moisture Separator Model DA300-FRO-1 for collecting condensation within air lines.

Material Hose of 1 inch diameter and 15 feet length with internal expanded male ends and cam locks. Capacity of 300 psi required.

Air Hose of 1/2 inch diameter and 50 feet length from compressor to Wet Spray Nozzle. Specify 200 psi and 2 lug chicao fittings.

Air Hose of 1/2 inch diameter and 15 feet length from Moisture Separator to Spinning Nozzle Assembly. Specify 200 psi capacity with one end chicago fitting and one end brass female swivel.

Cam-Lock Couplings of 1 inch and 3/4 inch diameter (2 sets each).

3/16 inch hardened steel tip.

Tip retainer nut.

Pole gun assembly.

### Other Outside Source equipment:

- 180 cfm Air Compressor
- 5500 watt Generator with 220 volt single phase.

## FINISHING

Finishing is generally not required when applying SubstrateResurfacer by the spincast method of application.

If Sauereisen No. F-121 is applied by trowel, finishing after material placement is recommended. In this case, apply a broom or brush finish to provide a more desirable bonding surface.

## COVERAGE

35 ft<sup>2</sup> per unit at 1/8 inch thickness.

17.5 ft<sup>2</sup> per unit at 1/4 inch thickness.

## CLEAN-UP

All equipment should be cleaned by scrubbing with a stiff brush and water at the end of each working period or when build-up becomes pronounced.

## SETTING/CURING

Proper curing of No. F-121 is critical to the serviceability of the completed structure. No. F-121 has an initial set at 70°F in 8 hours. Final set as 70°F is in 24 hours.

## PACKAGING

SubstrateResurfacer No. F-121 is packaged in 50 pound moisture-resistant bags on plastic wrapped pallets.

## SHELF LIFE

Sauereisen No. F-121 has a shelf life of six (6) months when stored unopened in a dry location at 70°F. Avoid freezing. If there is a doubt as to the quality of the materials, consult a Sauereisen representative.

## CAUTION

Consult Material Safety Data Sheets and container label Caution Statements for hazards in handling these materials.

## WARRANTY

We warrant that our goods will conform to the description contained in the order, and that we have good title to all goods sold. WE GIVE NO WARRANTY, WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE OR OTHERWISE, EXPRESS OR IMPLIED, OTHER THAN AS EXPRESSLY SET FORTH HEREIN. We are glad to offer suggestions or to refer you to customers using Sauereisen cements and compounds for a similar application. Users shall determine the suitability of the product for intended application before using, and users assume all risk and liability whatsoever in connection therewith regardless of any suggestions as to application or construction. In no event shall we be liable hereunder or otherwise for incidental or consequential damages. Our liability and your exclusive remedy hereunder or otherwise, in law or in equity, shall be expressly limited to our replacement of non-conforming goods at our factory or, at our sole option, to repayment of the purchase price of non-conforming goods.

- o **Distributors and agents in major cities throughout the world. Consult manufacturer for locations.**
- o **Information concerning government safety regulations available upon request.**
- o **Sauereisen also produces inorganic compounds for assembling, sealing, electrically insulating and grouting.**

**SAUEREISEN** ..since 1899  
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