

Sauereisen No. F-120 Shotcrete is a Portland based - nylon fiber reinforced material. F-120 Shotcrete is specifically designed to be mixed with clean water and pumped through specialized pneumatic equipment at high velocity onto a vertical or overhead surfaces. No. F-120 Shotcrete is fast-setting and easily applied to new or existing structures, walls, roofs tanks, sewers, tunnels and shafts and capable of excellent bond to brick, concrete, masonry and steel.

Specified for environments where structural integrity needs to be restored, and for fireproofing and structural steel encasement.

CHARACTERISTICS

- o An economical concrete restoration material
- o Excellent bond to brick, concrete, masonry and steel
- o Reduced rebound of material for less wastage
- o High compressive & flexural strength
- o Increased single pass thickness in overhead applications
- o Typically applied by dry gunite method
- o May also be applied by wet shotcrete (Rotor-Stater Pump) method or by hand (trowel or cast)

AREA PREPARATION

Temperature of Working Area

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.

PHYSICAL PROPERTIES

Color	Light gray
Compressive strength (ASTM C-109)	
@ 7 days	5,600 psi (393.67 kg/cm ²)
@ 28 days	7,200 psi (506.16 kg/cm ²)
Flexural strength (ASTM C-580)	1,030 psi (72.40 kg/cm ²)
Minimum Application Thickness	1/2 inch

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.

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

Do not apply F-120 Shotcrete to frozen surfaces or if temperatures will fall below 40°F within 24 hours.

Anchoring System

When No. F-120 is applied on vertical or overhead surfaces at a thickness greater than 1 inch it must be reinforced or anchored. "T" type anchors or 2 inch x 2 inch mesh are suitable to secure the No. F-120 material. Consult Sauereisen for recommendations on proper reinforcing or anchoring systems.

SURFACE PREPARATION

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

Concrete must be firm and structurally sound and able to support the applied thickness of the Shotcrete

Where Shotcrete is to be used for repairing deteriorated concrete, it is essential that all unsound material be removed first.

Hydroblasting should be utilized to remove laitance, contaminants, or loose particles and to produce a clean hard surface.

To ensure maximum adhesion and to prevent dehydration of No. F-120 at the substrate interface, the concrete should be thoroughly dampened with potable water (surface saturated), prior to application, being careful to avoid standing water.

If concrete cannot be dampened or an unusual stress condition exists, a concrete bonding agent is recommended. Consult Sauereisen for recommendations.

APPLICATION

Mixing

Sauereisen No. F-120 Shotcrete is pumped dry and mixed at the spray nozzle with clean potable water using standard shotcrete equipment, such as the Allentown Rotary Gun Model GR-600 (or larger), the Allentown Model S-110 pod type unit or similar equipment.

Do not retemper by adding more water and remixing. Material that has hardened due to delay in placing must be discarded.

MATERIAL PLACEMENT

The quality of the shotcrete depends largely upon the skill of the applicator. Every effort should be made to maintain the uniform control of the powder to water mix ratio, nozzle velocity and spray technique. No. F-120 Shotcrete should be applied in layers over previous placed shotcrete before it has a chance to cure.

Rotor/Stator Pumps outfitted with an appropriate spincaster nozzle with internal air motor for rotary spray applications may be used. For wet straight shot applications, use a pole gun with aluminum spray head.

CURING

Damp curing is recommended especially in conditions of extreme heat, dry or windy conditions.

If Sauereisen No. F-120 Shotcrete 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

One 50 pound bag will cover approximately 10 square feet at 1/2 inch thickness, or will yield 0.4 cubic feet.

Greater thickness can be achieved with additional coats to reach desired specified application thickness.

PACKAGING

Sauereisen No. F-120 Shotcrete is packaged in 50 pound moisture-resistant bags on plastic wrapped pallets or in a 3,000 pound bulk sack.

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-120 is critical to the serviceability of the completed structure.

F-120 must be properly cured in a high humidity environment (fog spray or equivalent), during elevated temperatures. If special condition exists, please consult Sauereisen's technical service department for additional information.

SHELF LIFE

Sauereisen No. F-120 Shotcrete has a shelf life of one (1) year when stored unopened in a dry location at 70°F. 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.

Contains Portland Cement CAS #65997-15-1. Freshly mixed cement products may cause skin injury. Avoid contact with skin where possible and wash exposed area promptly with water. If any product gets into the eye, rinse immediately and repeatedly with water. If ingested, **do not** induce vomiting and get prompt medical attention. Also contains sand CAS #14808-60-7. Avoid breathing dust. Prolonged exposure to dust may cause delayed lung injury (silicosis) or cancer IARC Class 2A. Wear NIOSH approved mask for silica dust. **Keep Out Of Reach Of Children.**

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 Information concerning government safety regulations available upon request.

LEGAL NOTICE

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