

SAUEREISEN

SHEET MEMBRANE NO. 90

Sauereisen Sheet Membrane No. 90 is an impervious synthetic elastomer of uniform quality and thickness for use in corrosion-resistant construction. It is a fiber-reinforced poly-tetra-fluoro-ethylene (PTFE) lining system. No. 90 replaces rubber, plastic and asphalt membranes commonly used on floors, tanks and process vessels, between substrate and acid/alkali-resistant brick.

The elastomeric sheet membrane remains flexible over a temperature range of -20° to +200°F. Thus, when the substrate moves, the membrane serves as a sheer pad between it and the brick lining. No. 90 is an easy-to-install, single-layer system which resists water, oil, most alkalies and acids. It will protect the substrate from corrosive chemical attack.

CHARACTERISTICS

- Long-term flexibility, even at temperatures as low as -20°F.
- Resistant to tearing, puncturing and aggressive chemicals.
- Simple installation. No melting. Just unroll, cut, & place.
- Time saving - work can proceed immediately after installation.
- Easy to repair - adhere patches as needed.

AREA PREPARATION

Temperature of Working Area

Maintain a temperature of 50°-80°F on air, substrate, Sheet membrane No. 90, and Primer No. 501 during installation. The membrane and primer 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 of the primer is retarded.

PHYSICAL PROPERTIES

	Primer No. 501	Membrane No. 90
Application time at 70°F		
Working time	20 minutes	--
Initial set at 70°F	6 hours	--
Components	2 -Component	3'x 75' roll
Thickness	5 -10 mils	1/16" (62 mils)
Bond strength to concrete (ASTM D-4541)	Concrete failure	--
Color	Clear	Black
Maximum service temperature	--	200°F (93°C)

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 primer working time decreases. In higher temperatures it is recommended that the No. 501 Primer be stored in a cooler area prior to mixing.

Surface Preparation

Concrete - Refer to SSPC-SP13/NACE 6 "Surface Preparation of concrete" for detailed guidelines.

New Concrete - Concrete must be clean, dry, firm, free of laitance, and have attained 3000 psi compressive strength or be structurally sound as specified by the architect/engineer. Concrete should be floated free of ridges or depressions and all voids filled with Sauereisen No. F-120. Concrete should be sloped 1/8 inch to 1/4 inch per foot for proper drainage.

Surfaces should be made free of oil, grease, and other contaminants that may inhibit bond. This can be achieved by chemical cleaning. Abrasive blast, high-pressure water blast, or acid etch concrete to remove laitance and obtain uniform surface texture resembling coarse sandpaper.

If acid etching is utilized as the method of surface preparation, the acid should remain in contact with the concrete until bubbling stops. The concrete should then be flushed with clean water and scrubbed with a stiff bristle broom to remove acid salts and loose deposits. All acid and residue must be removed prior to placing the No. 90 system.

Old Concrete - Concrete must be dry, firm and structurally sound as specified by the architect/engineer. Surfaces should be made free of oil, grease, and other contaminants that may inhibit bond. This can be achieved by chemical cleaning. All structural cracks must be repaired and slopes reestablished with Sauereisen Underlayment No. F-120. Abrasive blast, high-pressure water blast, or acid etch concrete to remove laitance and obtain uniform surface texture resembling coarse sandpaper.

If abrasive or high-pressure water blasting is used as the method of surface preparation, all sand and/or debris must be removed by thoroughly vacuuming the area with an industrial vacuum cleaner.

If surface does not have desired texture, repeat surface preparation procedure.

Steel - Surfaces should be dry and made free of grease, oil, and other contaminants that may inhibit bond of No.90 by chemical cleaning. All welds must be continuous and free of flux. Welds should be ground flat and smooth without any sharp edges. If sharp edges are present, they must be removed prior to application of No. 90. Metal surfaces should be abrasive blasted employing SSPC-SP5 (white metal) with a nominal 2.5 mil profile.

APPLICATION

Mixing

Primer 501 is packaged in premeasured containers consisting of Hardener Part A and Resin Part B which must be mixed together before use. Remix the Part A and Part B before combining.

Completely empty contents of Hardener Part A into Resin Part B container. Using a slow speed 1/2 inch drill motor with a "Jiffy" type blade mix thoroughly until blended for 3 minutes. Primer is ready for use immediately after mixing.

Installation

Apply primer to concrete or steel using either a short nap adhesive roller with a nondegradable core, or a nylon bristle brush. For horizontal applications, pour primer onto the surface and spread with a squeegee before backrolling or brushing.

Primer 501 may also be sprayed using airless spray equipment. Typical application thickness is 5-10 mils. Consult Sauereisen for specific details.

COVERAGE

1 gallon unit	200 ft ² at 8 mils thick.
3 gallon unit	600 ft ² at 8 mils thick

*Coverage is theoretical and will vary depending upon surface conditions, porosity, application techniques, and project specifics.

PACKAGING

1 gallon unit

Part A Hardener	1 gallon can
Part B Liquid	1 gallon can

3 gallon unit

Part A Hardener	2 gallon pail
Part B Liquid	3 ¹ / ₂ gallon pail

Containers are filled by weight, not volume. Container size does not indicate volume of contents.

SETTING/CURING

Primer No. 501 must be tack-free before the installation of sheet membrane No. 90.

Sheet membrane No. 90 - Apply No. 90 over Primer No. 501 after the latter dries to an essentially tack-free condition - but in no case sooner than 45 minutes or longer than two hours depending on temperature during Primer application. Strips of the desired length of No. 90 should be pre-cut from a roll and placed on the substrate which has been primed with Primer No. 501.

The membrane has a protective plastic release backing which must be removed as the sheet is placed. Place strips adjacent to each other and overlap. The overlap area has an adhesive surface and permits the adjacent strip to bond to it. The sheet should then be rolled with a roller to remove any air bubbles and assure a tight bond.

Pressure-Sensitive - 2 mil thick, clear Fluoropolymer Tape No. 92 should be applied over the joints between adjacent strips of Sheet Membrane No. 90 when it is cut or fabricated in the field. Final surfacing work can proceed immediately after the membrane installation is completed.

SETTING/CURING

Sheet Membrane No. 90 - No. 90 is ready for surfacing work upon installation.

COVERAGE

Sheet Membrane No. 90

225 ft² per single roll. When considering overlap of multiple rolls, actual coverage will be closer to 187 ft².

PACKAGING

Sheet Membrane No. 90

No. 90 Roll 3'x 75' long (225 ft²)

Membrane Tape No. 92

No. 92 Roll 3" x 30' long (7.5 ft²)

CLEAN-UP

All equipment should be cleaned with kerosene or mineral spirits within one (1) hour after use and after each days use. If removal is required after cure, consult Sauereisen for recommendation.

SHELF LIFE

Sauereisen Sheet Membrane No. 90, Primer No. 501 and Sheet Membrane Tape No. 92 have a shelf life of one year when stored in unopened, tightly sealed containers 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 nonconforming goods at our factory or, at our sole option, to repayment of the purchase price of nonconforming goods.

☐ **Distributors and agents in major cities throughout the world. Consult manufacturer for locations.**

☐ **Information concerning government safety regulations available upon request.**

☐ **Sauereisen also produces inorganic compounds for assembling, sealing, electrically insulating and grouting.**

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