

Sauereisen Fib-R-Thane is an elastomeric lining composed of fiber-reinforced, asphalt-modified urethane. Fib-R-Thane is used as a chemical-resistant membrane or gasket seal for the protection of concrete, block and steel. Available in two formulations, Fib-R-Thane No. 88T is applied by trowel, while No. 88S is the sprayable grade.

Fib-R-Thane has excellent adhesion to most substrates. As a high solids elastomer, it is recommended when movement from temperature change or other causes will be encountered. Nos. 88T & 88S resist acids, alkalis, and salts associated with flue gas immersion environments. The urethane content of Fib-R-Thane allows it to exhibit an improved resistance to oil, grease and solvents in comparison to standard asphalt.

Fib-R-Thane maintains excellent elasticity and adhesion over a temperature range of -30°F to 250°F. When subjected to mechanical stress, the lining has nearly 100% recovery.

CHARACTERISTICS

- o Outstanding chemical resistance to acids and alkalis.
- o Permanently flexible from -30°F to 250°F.
- o Easy to apply by trowel or spray.
- o Interlocking fiber matrix.
- o Urethane-based elastomer.
- o Suitable for application on steel, block or concrete substrates.
- o Excellent elasticity.

AREA PREPARATION

Temperature of Working Area

Maintain a temperature of 60° - 85°F on air, substrate and material during mixing, application, and cure. Dew point of air must also be monitored and substrate temperature must be maintained at least

PHYSICAL PROPERTIES

| | |
|---------------------------------------|----------------------------------|
| Components | 2 parts |
| Elongation | 32 % |
| Impact resistance @ 125 mils (D-2794) | 140 in.-lbs. |
| Resistance to abrasion by sandblast | Excellent |
| Service temperature range | -30°F to 250°F (-34°C to 121°C) |
| Tensile strength (ASTM D-638) | 58 psi (4.1 kg/cm ²) |
| Weight solids | 100% |

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.

5°F above dew point. Store material in the range of 65° - 80°F for at least 48 hours before use.

Surface Preparation

Metal - Surfaces should be dry and made free of grease, oil, and other contaminants that may inhibit the bond of Fib-R-Thane. Chemical cleaning is recommended. Abrasive blast to a nominal 2.5 mil profile employing SSPC-SP5 White Metal Blast for immersion and SSPC-SP10 Blast for other service conditions. All welds must be continuous, free of flux and either ground flat or smoothed to eliminate sharp edges.

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

New Concrete - All structures must have the necessary strength to withstand imposed loads during normal use and operation. For thin applications where Fib-R-Thane is used as a membrane, it is recommended that surfaces be floated free of ridges or depressions and all voids filled with Sauereisen Underlayment No. F-120 or No. 209 Filler Compound. The choice of underlayment will depend on the severity of the voids to be filled. Surfaces should be sloped a maximum 1/4 inch per foot for drainage.

Surfaces should be made free of oil, grease, water, 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 to obtain a uniform surface texture exposing fine aggregate resembling coarse sandpaper.

Old Concrete or Block - The working substrate must be dry, firm and strong enough to withstand imposed loads during normal operation. Mechanical methods should be utilized to remove old paints, coatings, and deteriorated concrete. Chemical clean to eliminate oil, grease and other contaminants that may inhibit bond.

Abrasive blast, high-pressure water blast, or acid etch concrete to remove laitance and to obtain a uniform, sound substrate. All prepared surfaces must be allowed to dry prior to the Fib-R-Thane application.

Regardless of preparation method used, all surfaces must be vacuumed to remove any loose deposits or contamination.

APPLICATION

Mixing

Packaging consists of premeasured, unitized containers of Hardener Part A and Resin Part B.

Completely empty contents of Hardener Part A into Resin Part B. Using a slow speed 1/2 inch drill motor affixed with a

"Jiffy" type blade, mix 3 - 5 minutes until thoroughly blended. Thorough mixing of this material is very important.

Mix only complete batches. Material which has begun to set must be discarded. Do not add any adulterants to either component or mixed material.

Installation

Fib-R-Thane is self-priming and applied at various thicknesses depending on the end use. The formulation for No. 88T must be trowel applied while the No. 88S version can be spray or trowel applied.

Working time of Fib-R-Thane is approximately 45 minutes. All mixing and placement of material should occur within this period. When multiple coats are installed, a minimum of one hour at 70°F should be maintained between applications. To assure intercoat adhesion, successive coats should be applied no later than the next day.

Trowel application of No. 88T - Deliver material to finishers and spread a thin layer onto mortar pans immediately after mixing. Do not let mixed material remain in the mixing vessel. Spread No. 88T with a trowel to the specified thickness.

Spray application of No. 88S - Application should be done with a 50% overlap in a "cross hatch" pattern to reduce the possibility of pinholes and to assure complete coverage. Generally, two coats will be required to achieve a 1/4 inch thickness.

The following equipment is typically used for spray application:

Mastic pump - Fib-R-Thane may be sprayed with a minimum 45:1 piston-primed, airless pump such as the model formerly manufactured by Graco. The current specifications for new equipment is the Graco 56:1 King Piston Primed Airless, Model 236-477. Remove filter from surge tank. Remove cage above lower ball valve located near "foot" (lower end) of pump. Other pumps may be suitable, depending on job site requirements.

Gun - Graco Pistol-Grip Flo Gun, Model 224-991.

Gun tip - Graco Reverse-a-Clean™ housing part No. 222-674 with 0.039" orifice, Model GHD-539. The diffuser should be removed prior to use.

Material hose - 6' whip end, 3/8" i.d.; working pressure 5,000 psi, 16,000 psi burst.

Material hose - 0-25' overall, 1/2" i.d.; working pressure 4,000 psi, 16,000 psi burst.

Material hose - 25-75' overall, 3/4" i.d.; working pressure 4,000 psi, 12,000 psi burst.

Air compressor - 180 ft³ per minute at 100 psi, minimum.

Air hose from compressor - 3/4" to 1" i.d.: 100' maximum length to mastic pump.

Measures such as water traps, dryers, or filters should be used to prevent pump freeze-up.

SETTING/CURING

Curing of the lining is by chemical reaction. While Fib-R-Thane has an approximate working time of 45 minutes, initial set occurs in about one hour at 70°F. Fib-R-Thane cures to a semi-soft, elastomeric state which can accept a brick or monolithic lining after 24 hours. Protect the installation site from moisture and foot traffic for 48 hours.

TESTING

For specific applications, a holiday detector should be utilized to ensure a continuous, pinhole-free lining. Pinhole testing should occur after 24 hours at 70°F using a Tinker & Razor Holiday Detector or similar model. Voltage will be dependent on coating thickness. Consult a Sauereisen representative for details.

COVERAGE

Following is typical coverage of Nos. 88T & 88S at various thicknesses.

| <u>Thickness</u> | <u>Area per gallon</u> |
|---------------------|------------------------|
| 1/8 inch (125 mils) | 12.8 ft ² |
| 1/4 inch (250 mils) | 6.4 ft ² |

Actual coverage may vary depending on jobsite conditions and surface irregularities.

CLEAN-UP

All equipment should be cleaned with a general orange solvent or mineral spirits within one (1) hour after use and after each day's use. If removal is required after cure, consult Sauereisen for recommendations.

PACKAGING

Fib-R-Thane is packaged as a can of Hardener and a pail of Resin which are combined.

No. 88T - The trowelable formulation, is available in one and 2.5 gallon units.

No. 88S - The Sprayable formulation is supplied in one or five gallon units.

SHELF LIFE

Sauereisen Fib-R-Thane has a shelf life of one (1) year when stored in unopened, tightly sealed containers 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.

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.**

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