

An original Sauereisen adhesive for thread locking applications...

Sauereisen LockThred™ Cement No. 1S offers advantages for use as a thread locking cement. It is formulated to flow into place and then bond tenaciously. LockThred™ enables long service life due to its volume stability and resistance to extreme temperatures.

LockThred™ No. 1S is thermally conductive and electrically insulating. It is supplied in a paste form that avoids settling. With a silicate-based binder system, it bonds best to metal, ceramics and glass.

Working properties of No. 1S exhibit a virtually unlimited pot life prior to exposure to air. This feature makes LockThred™ Cement ideal for automated dispensing applications.

Sauereisen No. 1S sets upon contact with air. Its cure time may be accelerated by heat. Upon curing, the cement forms a durable ceramic and will resist temperatures through 1,800°F.

Due to the inorganic composition of Sauereisen cements, LockThred™ will not outgas.

PHYSICAL PROPERTIES

Coefficient of thermal expansion	6.2 x 10 ⁻⁶ /F° (11.1 x 10 ⁻⁶ /C°)
Color	Off white
Compressive strength @ 7 days	3,900 psi (274 kg/cm ²)
Maximum service temperature	1,800°F (982°C)
Modulus of rupture	460 psi (32 kg/cm ²)
Shear strength	710 psi (49 kg/cm ²)
Tensile strength	410 psi (28 kg/cm ²)

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.

CHARACTERISTICS

- Heat conductive and thermal shock resistant.
- Safely insulates electricity.
- Withstands temperatures to 1,800°F (982°C).
- Resists oil, solvents and most acids.
- Non-toxic and odorless.
- Adheres to metal, ceramics, glass and other surfaces.
- Good mechanical bond.
- Resists settling.

INSTRUCTIONS

Mixing

Sauereisen recommends remixing No. 1S prior to use. If necessary, Thinning Liquid No. 14 can be used where the cement is required in a more fluid consistency. Minimal amounts of extra liquid should be used as excess liquid will reduce mechanical strength, increase shrinkage and delay set time.

Application

Surfaces to receive the cement should be clean and free of grease and dirt. Porous substrates should be dampened slightly with Sauereisen Thinning Liquid No. 14 prior to application.

LockThred™ No. 1S is air-setting and should be used in thin applications. Avoid applying in a thicknesses greater than 1/4 inch. If necessary, multiple coats may be applied to build thickness. Placement of the cement readily occurs with the use of hand-operated or mechanical dispensing equipment.

SETTING/CURING

No. 1S cures by air drying at room temperature. Drying time depends on the consistency and thickness of the application. Normally 18-24 hours drying at ambient temperature is sufficient.

When the cement has limited exposure to air, or if it is desired to accelerate the cure, low temperature oven drying at 180°F can be used. Avoid steaming while drying. If the cement will be exposed to elevated temperatures that may approach or briefly exceed the recommended service limits, contact Sauereisen for appropriate drying schedule recommendations.

A heat cure is also suggested where humidity resistance is required. In addition, a moisture-resistant lacquer or silicone coating may be applied to the exposed surfaces after the final cure has been attained.

PACKAGING

Sauereisen LockThred™ No. 1S is packaged in 1-quart cans, 1-gallon cans, and 5-gallon pails.

CLEAN-UP

All equipment should be cleaned with soap and water before Nos. 1S cures. If removal is required after cure, a low concentration of sodium hydroxide will dissolve the cement.

SHELF LIFE

When stored in unopened, tightly sealed containers in a dry location at 70°F, Sauereisen No. 1S has a shelf life of six (6) months. If there is doubt as to the quality of the material, consult Sauereisen.

CAUTION

Consult Material Safety Data Sheets and container label Caution Statements for any hazards in handling this material.

COMPLIANCE STATEMENTS

LockThred™ Cement No.1S is fully compliant with the following regulations and directives as published by the European Union:

- RoHS** - Restriction of Hazardous Waste
- WEE** - Waste Electrical and Electronic Equipment
- REACH** - Registration, Evaluation and Authorization of Chemicals

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.

- Information concerning government safety regulations available upon request.**
- Sauereisen also manufactures products for corrosion resistance, electrostatic discharge protection and machinery grouting.**

SAUEREISEN ...since 1899

160 Gamma Drive
Pittsburgh, PA 15238-2989 USA
Phone 412/963-0303 Fax 412/963-7620
www.sauereisen.com