

# SAUEREISEN

## ELECTRICAL POTTING CEMENT NO. 76

High grade calcium aluminate castable cement for:

**Assembling**  
**Corrosion Resistance**  
**Potting**  
**Sealing**  
**Thermal Shock**

Electrical Potting Cement No. 76 is a castable, hydraulically-setting cement used as a bonding mortar or refractory coating for high-temperature assembling, encapsulating and potting applications.

### CHARACTERISTICS

- Insulates electricity.
- Withstands temperatures to 2600°F (1427°C).
- Thermally conductive.
- Chemical resistant.
- Odorless.
- Adheres to metal, ceramics, brick and other surfaces.
- Good volume stability.
- Hardens by hydraulic set.

### INSTRUCTIONS

#### Mixing

Sauereisen No. 76 is supplied as a Powder and mixed with potable water as used. No. 76 Powder should be thoroughly remixed before using. Weigh out approximately 5.25 parts Powder and one part water. Place measured amount of water into a clean mixing container and gradually add No. 76 Powder to water while mixing. Continue mixing until a smooth uniform consistency is obtained. Mixing may be done with a slow-speed mixer or by hand with a spatula.

Minimum amount of water should be used as excess water reduces mechanical strength, increases shrinkage and delays set time. Failure of cement to adhere indicates setting has begun. Do not attempt to retemper by adding more water.

### PHYSICAL PROPERTIES

Autoclave expansion	0.04%
Coefficient of thermal expansion	6.50 x 10 <sup>-6</sup> /F° (11.7 x 10 <sup>-6</sup> /C°)
Compressive strength	3,500 psi (246 kg/cm <sup>2</sup> )
Density (wet)	131 pcf (2.09 gm/cm <sup>3</sup> )
Dielectric strength @ 70°F (21°C)	50 to 60 Volts/mil (1,960 to 2,350 Volts/mm)
Flexural strength	800 psi (56 kg/cm <sup>2</sup> )
Maximum service temperature	2,600°F (1,427°C)
Mix ratio (powder to water, by weight)	5.25:1
pH range	4.0 -12.0
Thermal conductivity	6.5 Btu·in/ft <sup>2</sup> ·hr·°F (2.3 x 10 <sup>-3</sup> Cal·cm/cm <sup>2</sup> ·sec·°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.

#### Application

Surfaces to receive the cement should be clean and free of grease and dirt. Highly porous substrates can be dampened slightly with Sauereisen Thinning Liquid No. 14. Priming in this manner will help to prevent the moisture of the curing cement from wicking into the substrate.

Electrical Potting Cement No. 76 may be placed by brushing, pouring or other automatic dispensing methods. Since the cement sets by a hydraulic process, Sauereisen No. 76 can be applied in thick sections and within confined spaces.

### SETTING/CURING

Cement No. 76 takes an initial set in approximately one hour at 70°F and develops a strong hydraulic bond in 24 hours at room temperature.

Proper curing of No. 76 is critical to developing maximum strengths. Sauereisen No. 76 should be moist-cured in a high humidity controlled environment for at least 24 hours at room temperature in accordance with ACI 547 recommendations.

If a humidity controlled environment is not available, cemented articles should be placed in covered trays during the curing period. Another alternative is to apply an appropriate curing compound in accordance with ASTM C-309 specifications. After a 24 hour cure, controlled drying is required to ensure that all residual moisture is removed from the cement. Consult Sauereisen for an appropriate drying schedule recommendation.

If high humidity resistance is required and it is impractical to fire cement, a moisture-resistant lacquer or silicone coating should be applied to the exposed surfaces.

### PACKAGING

Sauereisen Cement No. 76 is available in gallon cans or 50-lb. moisture-resistant bags on plastic-wrapped pallets.

### CLEAN-UP

All equipment should be cleaned with soap and water before No. 76 cures. If removal is required after cure, consult Sauereisen for recommendations.

## SHELF LIFE

Sauereisen No. 76 Powder has a shelf life of one 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 material, consult Sauereisen.

## CAUTION

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

## 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 produces compounds for corrosion resistance, grouting and electrostatic discharge.**

**SAUEREISEN** ...since 1899

160 Gamma Drive  
Pittsburgh, PA 15238-2989 USA  
Phone 412/963-0303 Fax 412/963-7620  
[www.sauereisen.com](http://www.sauereisen.com)