SAUEREISEN

ELECTRIC HEATER CEMENT NO. 6

Air-setting refractory for:

Appliances	**Heaters**
Coatings	**Insulating**
Embedding	**Molding**

Sauereisen Electric Heater Cement No. 6 is a versatile high-temperature cement used for refractory coatings, lining furnaces, embedding electric heating elements, coating resistors, molding and insulating. No. 6 is supplied in Powder form and needs only be mixed with water to apply.

CHARACTERISTICS

- ☐ Resists oil, electricity, most solvents, and all acids (except hydrofluoric)
- ☐ Resists temperatures to 2500ºF (1371ºC)
- ☐ Heat conductive and thermal shock resistant
- ☐ Excellent abrasion resistance
- ☐ Excellent for embedding and insulating
- ☐ Withstands white heat
- ☐ Can be applied to practically any surface
- ☐ Air sets to extreme hardness
- ☐ Odorless

INSTRUCTIONS

Mixing

Sauereisen No. 6 Powder should be thoroughly remixed before adding water. Recommended mix ratio is 75-80% Powder to 20-25% Potable water by weight. Place water in clean mixing container. Gradually add No. 6 Powder to water while mixing. Continue mixing until a uniform, smooth 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.

PHYSICAL PROPERTIES

Color	Tan to Gray
Compressive strength (ASTM 579)	2,700 psi (189 kg/cm^2)
Dielectric constant (ASTM D150)	5.0 - 7.0
Dielectric strength (ASTM D149)	
@ 70ºF (21ºC)	12 to 51.0 Volts/mil (490 to 2,000 Volts/mm)
@ 750ºF (399ºC)	$\leq$ 15.0 Volts/mil (59 Volts/mm)
@ 1,475ºF (802ºC)	$\leq$ 3.8 Volts/mil (149 Volts/mm)
Maximum service temperature	2500ºF (1371ºC)
Flexural strength (ASTM C580)	320 psi (22 kg/cm^2)
Tensile strength (ASTM C307)	285 psi (20 kg/cm^2)
Volume resistivity (ASTM D1829)	
@ 70ºF (21ºC)	10^{7}-10^{8} ohm-cm
@ 750ºF (399ºC)	10^{4}-10^{5} ohm-cm
@ 1,475ºF (802ºC)	10^{2}-10^{3} ohm-cm

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.

After mixing, place in an air-tight container to soak for at least 24 hours before using. Remix again to attain its original consistency.

Application

Surfaces to receive No. 6 Cement should be clean and free of grease or dirt. Porous substrates should be dampened slightly with Sauereisen Thinning Liquid No. 14 prior to application. No. 6 should be used in thin applications; apply several coats where a heavy layer is desired. In multiple coat applications, each coat must be thoroughly dry prior to application of additional coats. If necessary, Thinning Liquid No. 14 should be used where No. 6 Cement is required in a thinner consistency. No. 6 should not be applied at a thickness greater than 1/4 inch.

SETTING/CURING

No. 6 cures by air drying at room temperature. Drying time depends on the consistency and thickness of the application. Normally 18 to 24 hours drying at ambient temperature is sufficient. When the cement has minimal exposure to air, or if it is desired to accelerate the cure, low-temperature oven drying at 180ºF can be used. Avoid steaming while drying. If the cement will be exposed to elevated temperatures, contact Sauereisen for appropriate drying schedule recommendations.

If high humidity resistance is required and it is impractical to fire No. 6 Cement, a moisture-resistant lacquer or silicone coating should be applied to the exposed surfaces.

PACKAGING

No. 6: 1-quart and 1-gallon cans; 50-lb. bags.

CLEAN-UP

All equipment should be cleaned with soap and water before No. 6 cures. If removal is required after cure, a low concentration of sodium hydroxide may dissolve the cement. Consult Sauereisen for other recommendations.

SHELF LIFE

Sauereisen No. 6 has a shelf life of one year when stored in unopened, tightly sealed containers in a dry location at 70ºF. 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.

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