

# SCProbond™ HT-1 Cement

High Temperature Potting Cement

**Ceramic Cement for:**  
**Assembling Insulating**  
**Sealing Molding**  
**Potting Refractories**

SCProbond™ HT-1 High Temperature Potting Cement is a chemical setting cement based on a sodium silicate binder, that exhibits an extended potlife. For ideal performance, the cement should be heat cured at 150°F (65°C) to induce a final set after application. The cement is ideal for bonding ceramics, glasses or most metals. SCProbond™ HT-1 Cement can be applied in thicker applications without deformation.

## CHARACTERISTICS

- Non-Halogen
- Adheres to practically all surfaces that are clean and free of oil and grease.
- Resists oil, electricity and most solvents.
- Heat conductive and thermal shock resistant.
- Resists all acids (except hydrofluoric).
- Fireproof and gasproof.
- Resists temperatures to 2012°F (1100°C)

## PHYSICAL PROPERTIES

Color	Off white
Compressive strength	2500 psi (17.2 MPa)
Density (wet)	2.09 g/cm <sup>3</sup>
Density (cured)	1.72 g/cm <sup>3</sup>
Dielectric strength	1.3 kV/mm (35 V/mil)
Filler	Silica
Maximum Particle Size	595 microns
Maximum service temperature	2012°F (1100°C)
Mix ratio: By weight	100 : 18 ( powder to water)
pH Value	10.5
Pot-Life	8 hours
Thermal Expansion	6.9x10 <sup>-6</sup> /°C (3.8x10 <sup>-6</sup> /°F)

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

Cement Powder should be thoroughly remixed before using. Weigh out the powder and water separately. Place measured amount of water into a clean mixing container and gradually add the powder while mixing. Continue mixing until a smooth consistency is obtained. Mixing may be done with a slow-speed mixer or by hand with a spatula.

The cement may be mixed to a thinner consistency by regulating the amount of water used; however, the use of excess water will reduce the mechanical strength and increase shrinkage. Porous substrates may require dampening with a thinning liquid before applying the mixed cement.

## SETTING/CURING

The cement is chemical-setting, but should be heat cured between 150-180°F to induce the final set. Without heat cure, the cement may take 48 hours or more to fully harden. Working time after addition of mixed powder is approximately 8 hours. If the cement will be exposed to elevated temperatures, contact Silicon Carbide Products, Inc. for appropriate drying schedule recommendations.

## PACKAGING

Powder: 1-quart can, 1-gal cans, 50-lb. moisture-resistant bags & 50 lb. plastic pails.



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## CLEAN-UP

All equipment should be cleaned with soap and water before SCProbond™ HT-1 cures. If removal is required after cure, consult Silicon Carbide Products, Inc.

## SHELF LIFE

SCProbond™ HT-1 Powder 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 Silicon Carbide.

## 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.



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