

Glassbond Sauereisen Electrical Potting Cement No. 76

Characteristics

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

Recommended For

Assembling
Corrosion Resistance
Potting
Sealing
Thermal Shock

Description

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.

Physical Properties

Autoclave expansion	0.04%
Coefficient of thermal expansion	$6.50 \times 10^{-6}/F^{\circ}$ ($11.7 \times 10^{-6}/C^{\circ}$)
Compressive strength	3,500 psi (246 kg/cm ²)
Density (wet)	131 pcf (2.09 gm/cm ³)
Dielectric strength @ 21°C (70°F)	50 to 60 Volts/mil (1,960 to 2,350 Volts/mm)
Flexural strength	800 psi (56 kg/cm ²)
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 ² .hr.°F (2.3×10^{-3} Cal.cm/cm ² .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. Data should not be used for specification purposes.

Application/Instructions

MIXING - 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.

APPLICATION - Surfaces to receive the cement should be clean and free of grease and dirt. Highly porous substrates can be dampened slightly with 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, 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 21°C (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. 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 Glassbond 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.

Cleaning

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

Packaging

This material is supplied in various types and sizes of containers. Please contact Glassbond Sales for further details.

Shelf Life

No. 76 powder has a shelf life of twelve (12) months when stored in unopened, tightly sealed containers in a dry location at 21°C (70°F). If there is doubt as to the quality of the material, consult Glassbond.

Caution

Consult the 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. Users shall determine the suitability of the product for intended application before using.

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