

Caulkcrete[®] 100 ceramic cement

**An excellent, ready-to-mix
self-curing ceramic adhesive with superior electrical
insulation properties.**

***For use in lamps, appliances, heaters,
furnaces, resistors and elements.***

CAULKCRETE 100 ceramic cement is a white, odorless powder that, when mixed with water, delivers outstanding bonding characteristics and is ideally suited to applications that demand superior electrical insulation properties.

- Excellent bonding to glass, quartz, porcelain and metal.
- Resists thermal shock and ultra-high temperatures.
- Provides optimum dielectric strength.
- Insulates

Mixing

Mixing is quick and easy. Simply combine 12 to 16 parts of water (depending on your application requirements) to 100 parts of CAULKCRETE 100 cement (by weight) and stir vigorously to a creamy, consistent texture.

- Mix all the water and all the CAULKCRETE 100 cement together at once.
- Do not add water gradually.
- Do not add more water as the mixture thickens since this will weaken the cement.

Setting

The initial chemical set begins within 2 hours of the time water is added to the dry powder and it continues until the mixture is completely dry. Normally, this takes 24 hours, but the time may vary depending on the amount of water used, the thickness of the cement to be dried and atmospheric conditions. CAULKCRETE 100 cement is slightly exothermic.

Curing time can be shortened by placing the mixture in a low temperature oven set at 160°F (71°C) for at least 15 minutes. When followed by firing at 1200°F (649° C) for one hour per inch of thickness, a better bond will develop, and moisture resistance will be improved.

Bonding

Thoroughly clean the surfaces that are to be bonded together, and use only a thin coating of cement for best results. CAULKCRETE 100 cement can be poured, dipped or brushed into place for coating, potting and sealing applications. CAULKCRETE 100 cement creates an excellent bond to glass, quartz, porcelain, metal and metal oxides.



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DENSPLY

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Physical Properties

Color.....	White
Screen Analysis.....	90% ≤ 325 Mesh
Coefficient of Thermal Expansion.....	5.6×10^{-6} in/in/ °F
Compression Strength.....	4500 – 5500 psi
Thermal Conductivity.....	10 BTU/ft ² /hr/°F/IN
Maximum Service Temperature.....	3000°F
Volume Resistivity.	
@ 70°F (21°C)	10^{11} ohm-cm
@ 750°F(300°C).....	10^{10} ohm-cm
@ 1475°F (800°C).....	10^9 ohm-cm
Dielectric Strength.	
@ 70°F (21°C).....	77 to 103.5 volts/mil
@ 750°F(300°C).....	24 to 39.5 volts/mil
@ 1475°F (800°C).....	13.5 to 24 volts/mil
Chemical Resistance.....	Exhibits resistance to acids or alkalies. Very oil resistant.

Safety: Avoid direct contact with skin and eyes.

We recommend that eye protection and rubber gloves be worn when working with this product.

Refer to the Material Safety Data Sheet (MSDS) for full safety details.



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