

FORMCERAM C 442

Formceram C442 is a potting grade of ceramic 3000°F cement. Having a fine grain size and being mostly Aluminum Oxide it has extreme temperature resistance, high heat conduction, and good dielectric strength. Being a ceramic it can be in direct contact with heaters and still supply rigid strength. Use it to pot electronic devices where it is important to remove heat and hold the components in alignments. These products are very good in sensor applications for temperature probes and accelerometers where high conductivity and rigidity yields more rapid response. They are also strong and chemical resistance that provides high security for your circuit design. Formceram C442 is also an excellent fine grain castable similar to it's companion product C215. It's finer grain structure allows it to copy finer detail. Formceram is slightly porous and as such will wick up moisture so a surface sealer is recommended.

Formceram C442 is easy to use as it is a simple water mix similar to plaster of Paris. Blend slowly small quantities of water into the powder. It will first be dried and crumbly mass and then small additions of water will eventually turn the mass into a thick fluid. Mixing should continue slowly making sure that all the dried powder is incorporated while not stirring air into the mixture. Then pour the mass into the potting or mold container slowly from one side so that it flows across driving the air before it. After the objects are covered a probe can be used to try to dislodge any air bubbles. Taping and vibrating the container will also help the air bubbles rise to the surface. The pot life should be a little less than 1 hr. The mold should be covered or placed in a high humidity environment to allow the Formceram to set up. It is hydraulic cement that grows intertwining crystals slowly it does not "dry" to cure. Usually the material can be handled after about 4 hrs. but we recommend leaving it overnight if possible. Note: If more rapid cure is needed then an accelerator can be used please contact us. Once it is cured then it should be dried to remove excess moisture with a 170°F oven dry. If it is to be exposed to moisture then we recommend that the exposed surfaces be sealed against moisture.

Min temp	Max temp	CT E	Elect resist	Moist resist
-300°F	3000°F	4.2	Excellent	Excellent

Qt	Gal	5 Gal
\$60	\$150	Call