User's Instructions:

CRISTOBALITE INLAY INVESTMENT:

This investment is suitable for the casting of alloys with a melting point up to 1200ºC, such as: Gold, Silver and Copper-Aluminum. The Cristobalite Inlay Investment uses gypsum as a binding agent, and will decompose at temperatures higher than 820ºC.

Cristobalite Inlay Investment is a blend of cristobalite. A form of silica very rarely found in nature. So we have to synthetically produce cristobalite by calcining quartz at temperatures as high as 1600ºC. Cristobalite provides you casting mold with high thermal expansion at low temperatures such as 300ºC, providing excelente fit to your work.

Water-Powder ratio: The Cristobalite Inlay Investment can be mixed with 35 to 38 parts of water for each 100 parts of powder. For a higher fluidity use more water, for higher viscosity less water. The best results are achieved using the water measurer "Rutenium" that you will find at our resellers.

Weight of each package: The Cristobalite Inlay Investment is offered in 10 x 100g kits. When packing Rutenium products we take a special care to the weight of each package, so that it is not under the stated amount.

Mixing: It is very common to find end user who refuse to measure water and powder on the mix. Please measure water and powder for repeated results!

Technique for mixing: Open the 100g envelope using scissors and pour the content into 35-38 ml of water. Mix thoroughly using a spoon or spatula.

Better Precision Castings: One can expect a setting expansion of aprox. 0.5% before burn-out. At low temperatures (300ºC) a thermal expansion of aprox. 0.7% is easily reached. At higher temperatures (750ºC) a thermal expansion of aprox. 1.2% is achieved. A total expansion (setting plus thermal) can be as high as 1.7%.

Burn-out: Heat gradually till the temperature of 750ºC in a heating curve of 3 hours. After all the wax residues have been eliminated (clean white mold), lower the furnace temperature till casting temperature (check the manual of your alloy for this recomendation).

Silver Alloys: The Cristobalite Inlay Investment (any brand of Cristobalite) molds can crack if cooled at temperatures lower than 300ºC (switch between alpha and beta fases). These cracks results in fins in the finished casting.

Controlling Expansion: it is controlled by setting the point in the cooling curve where expansion is approximate to your alloy’s shrinkage.

The Cristobalite Inlay Investment is a blend of high quality additives to provide a low level of bubbles in the fluid mix, low foam, precise expansion, good shelf life, dense smooth castings, and precise working time.

Environment: The Cristobalite Inlay Investment can be recycled by grinding it back to a fine powder and can be added to the soil as a fertilizer to correct calcium and sulphur composition.

Composition: Calcium Sulphate, Quartz, Cristobalite and additives.

A product of:

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