



Process Instructions for Keragen® Non-precious-dental cast alloy on cobalt base, Type 4

CE
0434

Keragen® is a nickel- and beryllium-free chrome/cobalt alloy.
The strong oxide provides optimum metal/ceramic bonding.

Keragen® is suitable for open melting, as well as for the high frequency casting process.

Keragen® One of the remarkable features is the high corrosion resistance.
The composition has been well established for many years

Modulating:

To guarantee a good casting of the alloy, the wall thickness of the units should be no less than 0,5 mm. The sprues are attached as usual. It is beneficial to attach a "lost head" as a suction reservoir for solid full cast crown and bridge parts.

Bedding:

We suggest Kera-Vest (phosphate-bonded investment) from Eisenbacher Dentalwaren ED GmbH for dental alloy **Keragen®**. A preheating temperature of 900°C has proven to be good.

Casting:

Keragen is melted in a ceramic crucible. Clean any old cast alloy before melting new alloy.

Do not use graphite inserts!

Flame melting: With propane/oxygen or acetylene/oxygen. The instructions of the manufacturer are to be followed. A neutral adjusted flame prevents overheating of the alloy. Do not use fluxing agents. When the cast ingots have slumped and the melting becomes easier to form due to the flame pressure, start the casting procedure. It is important, that the oxide skin **does not** burst, as otherwise components of the alloy may get lost.

High frequency: Start casting cycle, when the last cast cube has slumped and the last "shadow" ran over the ingot. With HF-melting, just as with open flame casting, the oxide skin should not burst! Slowly let the muffle cool down in air.

The units are finished using normal tungsten carbides and aluminium-oxide stones recommended for non-precious alloy. The minimum thickness of the finished unit should be 0,2 - 0,3 mm.

After the cast let the muffle cool down to room temperature. Do not chill with cold water!

Porcelain:

No oxide blaze necessary. Degas for 5 minutes at 980°C in air (no vacuum) if necessity should occur. Blast frame with 250 my aluminum oxide and clean as usual with distilled water, ultrasonic or steam cleaner. **Never put a non-precious dental alloy into a pickling bath.** Wash- and opaque firing is according to the porcelain firing instructions. All firings without opaque must be slowly cooled.

Soldering:

Customary solders trade may be used for **Keragen®**. It is also suitable for laser welding (Kera®LA-con from Eisenbacher). **Keragen** parts should not be soldered with gold or palladium.

Cleaning:

Keragen is cleaned in ultrasonic bath or with a steam cleaner. While working with different alloys we always suggest, to use the same grinding instruments to prevent soiling.

Recommendation for single-use:

We do not recommend the reuse of the sprue cone since the characteristics of the alloy can be changed negatively.

Guarantee:

All recommendations are based on our own experiences. The user is responsible for correct use and processing. If nevertheless the claim for compensation should be asserted, this is only related to the value of goods that have been delivered.

Safety information:

Metal dusts are dangerous to health. Therefore we suggest to wear a respiratory mask and to exhaust when finalizing and sand blasting. Recommendation: filter FFP2

Our information and recommendations are based on the present scientific and technical knowledge and are to our knowledge and experiences to be seen as correct. The present version replaces all former indications.

For any further questions please contact us by fax or mail

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