

SHERANAXOS

INSTRUCTIONS FOR USE

Dental casting alloy based on cobalt for PFM restorations, type 5, cylindrical

1. Indications

This class IIa medical device is intended for qualified professionals who use this device to fabricate dental restorations. The SHERANAXOS alloy is characterised by high flowability. It allows thin-walled castings of up to three-tenths of a millimetre. The molecular structure ensures smooth and compact surfaces and thus reduced oxide formation. The SHERANAXOS alloy is manufactured in accordance with ISO standard 22674:2016. It is highly resistant to corrosion and does not contain any toxic elements such as beryllium, indium or gallium.

2. Wax-up

Ensure a thickness of not less than 0.6 mm so that a wall thickness of up to 0.3 mm can be obtained after trimming. Avoid sharp angles and contamination during the wax application.

Use sprues with a diameter of 3.5/4 mm.

3. Casting

Pour SHERANAXOS into clean and preheated ceramic crucibles. Each alloy must have its own specific crucible, do not preheat the alloy and do not use flux. Preheat the muffle to 850°C–1050°C; the holding time in the preheating furnace depends on the properties of the investment material and the size of the muffle.

Induction casting: Start the casting when the metal flows together shortly before the surface crust breaks open.

Flame casting: Place the metal in the preheated ceramic crucible and heat it while making circular movements. When the metal has melted, start up the centrifuge. Only use flame torches with multiple flames. Do not use flux.

Guidelines for regulating the flame: - Acetylene 0.4 bar / Oxygen 2 bar - Propane 0.2 bar / Oxygen 2 bar - Methane pressure / Oxygen 2 bar

4. Processing

Allow the muffle to cool down at room temperature. Remove the investment material and blast with aluminium oxide 110 to 150 µm with a pressure of 3–4 bar.

Continue the processing with tungsten carbide burs.

5. Soldering

We recommend using our SHERALOT N alloy for soldering.

6. Disposal

Dispose of contents / container in accordance with local regulations.

7. Information and precautions

- Cobalt-chromium alloys may in rare cases cause skin inflammation in susceptible individuals following contact. A contact test (patch test) is recommended.
- The dust and vapours from the metals can be harmful to health. During melting and polishing, use an appropriate extraction system.
- Before using the prosthesis, check whether other metal implants are already in the patient's mouth. If different metals are present, a battery effect can be generated.

- Each of our alloys is identified with a batch number (LOT). For the purposes of tracing, it is recommended to record this number on the patient's data sheet.
- The product does not require any special storage precautions.
- Traceability of the batch by SHERA is assured for 10 years.
- Storing objects fabricated from SHERANAXOS is the responsibility of qualified professionals (dental technicians).
- SHERA recommends informing the patient about the possibility that radiological examinations (MRI) may be affected.
- The product as sold is non-sterile.

8. Technical specifications

Vickers hardness HV10 (N/mm ²)	389
Density (g/cm ³)	8.3
0.2% yield strength (N/mm ²)	610
Elongation after fracture (%)	6
Young's modulus (N/mm ²)	200,000

9. Temperatures (°C)

Preheating temperature of muffle	850–1050
Solidus	1340
Liquidus	1400
Casting temperature	1450

10. Material composition (%)

Chromium	31
Cobalt	62
Molybdenum	5
Other elements less than 1%	C, Fe, Si, Mn

11. Warranty

SHERA Werkstoff-Technologie GmbH & Co. KG is certified according to DIN EN ISO 13485 and guarantees flawless quality of the products based on its thorough quality assurance system. Our usage recommendations are based on guidelines determined in our test laboratory. These values can only be guaranteed if the procedural steps as described are adhered to. The user is responsible for processing the products. No liability is assumed for faulty outcomes because SHERA has no influence on the further processing. Nevertheless, any claims for damages arising from such processing refer solely to the merchandise value of our products.

Explanations of the symbols used:



Consult instructions for use



Do not reuse



Batch number



Article number



Medical device



Date of manufacture



Manufacturer



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