Instruction for use «CERABOND BIO»

Product: «CERABOND BIO»
Description: Cobalt-Chromium-Bonding alloy. (Free of beryllium and nickel)
Usage: Alloy for the manufacturing of fixed restorations. Optimal for the veener with high-melting ceramic mass.
Nominal analysis:

Co	Cr	W	Mo	Si	Other constituents
59,18%	25,25%	9,8%	3,85%	0,94%	<1,0%

Alloy characteristics (standard value):

- Yield strenght (Rp 0.2) 625 MPa
- Tensile strenght 890 Mpa
- Elongation 9,1 %
- Modulus of elasticity 195 Gpa
- Vickers strength 285 HV
- Density 8,4 g/cm³
- Melting interval 1300 – 1390°C
- Casting temperature 1400 – 1500°C
- Thermal expansion coefficient (25 – 500°C) 14,0 [10^{-6} K^{-1}]

Modelling: Minimal wall thickness: For ceramic veneer 0,3mm, for acrylic resin veneer with retention bead 0,3mm. Form in cervical and palatal area of the cove. Avoid formation of undercut areas. Crowns and pontics are to be designed in compliance with the anatomical form of the teeth to provide for a consistent ceramic layer.
Investing: «Cerabond BIO» is consistent with all professionally available investment compounds. Pay attention on the instruction sheet.
Casting: Please use your own crucible for Cerabond BIO.
Recommendation: Use only fresh alloy for an explicit batch tracing. Use only ceramic crucible.
Open-flame melting: Use acetylene or propane/oxygen. Precisely observe the torch's directions for use. Adjust the flame properly. It prevents contamination of the alloy. Put the cast cylinder in a preheated crucible. As soon as the cast cylinders are coalesced, use a flame to adapt the alloy and then trigger the moulding procedure. After casting let the grouch cool down. Release the grouch from the cast object.
Casting with induction heated vacuum machines: Induction-heated vacuum/pressure casting machines by Heraeus are the most suitable for melting and casting. During pre-melting, the ingots are melted until the last ingot has sunk into the molten alloy and the edges or dull film of the ingot are no longer visible, continue to heat the next few seconds (1- 5 seconds). The casting ring is then inserted, and the main melting process commenced. The casting process is started 2 seconds after the dull film from melting has disappeared. Pay attention on the instructions.
Ceramic mass: Follow instructions of use of manufacturers. The TEC of the applied ceramic mass is to be considered.
Ceramic veneering: The working on cast frameworks shall be done in one direction only and with reduced pressure, usimg sharp milling cutters and ceramecally bonded stones. Then sandblast the frameworks with aluminium oxide 110 – 250µm and clean with hot dist. water, ultrasonic bath of steam blasting. Oxidise for 5 min. at 960 °C. The oxide layer shall have a uniform colour. Continue to sandblast with alumunium oxide at 110 – 250µm or clean with hot dist. water.
Brazing: For «Cerabond BIO» you may use commercially available solders Cerabond Solder.
Guarantee: Whether given verbally, in writing or by practical instructions, our recommendations for use are based upon our own experience and trials and can be considered as standard
values. Our products are subject to a constant further develop ment. Therefore alterations in construction and composition are reserved.
Packaging: «CERABOND BIO», 1000 g / 250 g