

Product: «CERABOND 200»

Description: Nickel-Chromium-Molybdenum alloy. (Free of beryllium)

Usage: Alloy for the manufacturing of fixed restorations

Nominal analysis (chemical elements):

Ni	Cr	Mo	Si	Other constituents
61,79%	24,60%	10,45%	1,65%	≤1,0%

Alloy characteristics (standard value):

- Yield strength 350 MPa
- Tensile strength 520 Mpa
- Elongation 4.8 %
- Modulus of elasticity 200 Gpa
- Vickers strength 200 HV
- Density 8,2 – 8,3 g/cm³
- Melting interval 1280 – 1330°C
- Casting temperature 1360 – 1400°C
- Thermal expansion coefficient (25 – 500°C) 14 [10⁻⁶ K⁻¹]

Modelling: To ensure proper flowing conditions within the model, the cap thickness should not fall below 0.5 mm. Attach sprueformer in the usual manner.

Investing: «Cerabond 200» is consistent with all professionally available investment compounds. Preheating temperature $t = 900^{\circ}\text{C}$. Pay attention on the instruction sheet.

Casting: Please use your own crucible for «Cerabond 200».

Recommendation: Use only fresh alloy for an explicit batch tracing. Use only ceramic crucible.

Open-flame melting: Use acetylene or propane/oxygen. Follow the instructions of the manufacturers of the casting devices for parameters and casting procedures. Adjust the flame properly. It prevents contamination of the alloy.

High-frequently/open melting: Do not use flux. Initiate the casting procedure after the last of the ingots has collapsed and approx. 2 seconds after the shaded area in the centre has disappeared. After casting, allow muffle to cool down to room temperature before deflasking. No water bath.

We do not recommend reusing the casting balls. Grind the frameworks with the usual milling cutters of Al - oxide stones. Minimum thickness of the formed lids may be 0.2 to 0.3 mm.

Ceramic mass: Follow instructions of use of manufacturers. The TEC of the applied ceramic mass is to be considered. Long-term cooling is not required.

Ceramic veneering: Oxide firing for 10 min. at 980 °C atmospheric. Then sandblast the frameworks with aluminium oxide 100 – 150µm and clean with dist. water, ultrasonic bath or steam blasting. Carry out opaque firing in compliance with ceramics processing instructions. After firing, we recommend to wait until the signs of red heat have disappeared before removing the work from the tray.

Brazing: Fixate the parts with soldering investment material. The prepared gap shall not exceed 0.2 mm with parallel walls. Use a suitable flux. The flux residues and oxides must be etched off. Clean surface thoroughly by steam cleaning or boiling in aqua dest. For «Cerabond 200» you may use commercially available solders «Cerabond Solder».

Polishing: Use an ultrasonic bath and stream-jet blower. Afterwards polish with rubber and brushes with suitable polishing paste.

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 development. Therefore alterations in construction and composition are reserved.

Packaging: «CERABOND 200», 1000 g / 250 g