

- Product:** «OMEGALLOY UNI»  
**Description:** Cobalt-Chromium-Model casting-Bonding alloy. (Free of beryllium and nickel)  
**Usage:** Alloy for the manufacturing of fixed restorations.

**Nominal analysis:**

| Co    | Cr    | Mo    | C     | Si    | Other constituents |
|-------|-------|-------|-------|-------|--------------------|
| 62,5% | 29,5% | 5,30% | 0,43% | 0,90% | <1,0%              |

**Alloy characteristics (standard value):**

- Yield strenght (Rp 0.2) 500 - 625 MPa
- Tensile strenght 870 Mpa
- Elongation 4,5 %
- Modulus of elasticity 200 - 225 Gpa
- Vickers strenght 380 HV
- Density 8,3 g/cm<sup>3</sup>
- Melting interval 1220 – 1280°C
- Casting temperature 1360 – 1400°C
- Thermal expansion coefficient (25 – 500°C) 14,5 [10<sup>-6</sup> K<sup>-1</sup> ]

**Modelling:** To ensure proper flowing conditions within the model, the cap thickness should not fall below 2 - 3 mm. Attach sprueformer in the usual manner. For full cast crowns and bridge components, the incorporation of a lost sprue setting reservoir is the recommended approach.

**Investing:** «OMEGALLOY UNI» is consistent with all professionally available investment compounds. Preheating temperature  $t = 900^{\circ}\text{C}$ . For the desorption and preheating process, it is important to observe the manufacturer's instructions for the investment compounds, especially regard to holding time.

**Casting:** Please use your own crucible for «OMEGALLOY UNI».

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.

**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  $980^{\circ}\text{C}$  atmospheric. Then sandblast the frameworks with aluminium oxide  $250\mu\text{m}$  and clean with dist. water, ultrasonic bath of steam blasting. Carry out opaque firing in compliance with ceramics processing instructions.

**Brazing:** For «OMEGALLOY UNI» you can use commercial solders (Cerabond Solder). Do not use Gold- or Palladium 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 development. Therefore alterations in construction and composition are reserved.

**Packaging:** «OMEGALLOY UNI», 1000g./ 250 g