

WIRONIUM[®] plus

Cobalt-chrome partial denture alloy
Partial dentures par excellence



An overview of the highlights:

- > Universal alloy for combination work and partial dentures
- > Consistent further development of top-rate alloy WIRONIUM[®]
- > Modified composition
- > Higher ductile yield and tensile strength
- > Very high elongation limit
- > Increased resistance to deformation
- > High degree of stability: activation of clasps without any problem
- > Biocompatibility certified by neutral institutes

The reliable universal alloy

The cobalt-chrome alloy WIRONIUM® plus demonstrates the fact that good products can be further improved upon. It is the result of our research and development activities. This universal alloy was consistently further developed on the basis of our tried and tested WIRONIUM® and is equally suited for combination work and partial dentures.

Improved features

We achieved the outstanding features through a special alloy technique using a continuous casting process and the addition of Tantal. The ductile yield and tensile strength were increased without significantly altering the superior elongation limit. Dentures made using WIRONIUM® plus have a high resistance to deformation, and clasps can be activated without any problem.



Biocompatible universal alloy for combination work and partial dentures

The requirements set down in ISO 22674 are clearly surpassed in all points.

WIRONIUM® plus is biocompatible and has no cytotoxic potential. This has been confirmed by an independent institute. We will gladly send you a copy of the certificate on request (www.bego.com).

Particularly well-suited for laser welding with Wiroweld thanks to reduced carbon content.

Easy processing

Basically this alloy is processed using the proven BEGO system in the same manner as the other WIRONIUM® alloys. The new system with the investment material Wiroquick or Wiroplus® S and the Wirofil duplicating flasks offers many advantages. Only the melting process and recognition of the moment for casting deviate somewhat: Basically this alloy is processed using the



This masterly work speaks for itself

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Flame-melting: when the molten mass is uniformly bright and moves slightly due to the flame pressure.

Fornax® or other high-frequency casting machines: 2 seconds after disappearance of the shadow of the glow.

Nautilus®: when the oxide skin has completely disintegrated, continue heating another 7 seconds, then cast. To continue with the alloy program.

WIRONIUM® plus is exclusively processed by the affiliated laboratory of the I.W.C. – INTERNATIONAL WIRONIUM® CIRCLE.

Subject to modifications in design, scope of delivery and composition. Whether given verbally, in writing or through practical instructions, our process-related data and recommendations are based upon our own experience and trials and can only be considered as standard values. Status as of: Jan. 2008.

WIRONIUM® plus Alloy characteristics:	standard values
Density [g/cm ³]	8.4
Melting interval [°C]	1310 – 1345
Casting temperature [°C]	approx. 1440
Elongation limit (A ₅) [%]	10
Tensile strength (R _m) [MPa]	1000
Ductile yield (R _{p 0,2}) [MPa]	700
Modulus of elasticity [GPa]	approx. 220
Vickers hardness (HV10)	340
CE 0197	ISO 22674

Composition in % by weight:

Co 62.5 · Cr 29.5 · Mo 5 · Si · Mn · Fe · Ta · N · C

Availability:	Unit	Content	Order No.
WIRONIUM® plus (only given to I.W.C.-laboratories)	1 pack	1000 g	50190
Accessories:			
Wiroweld, Co-Cr-Laser wire, containing no carbon:			
Ø 0.5 mm	1 pack	1.5 m	50005
Ø 0.35 mm	1 pack	2 m	50003
Cobalt-chrome solder	1 pack	5 g	52520
Bio-Certificate			82591

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