

Wirobond® 280

The non-precious metal premium alloy for metal-to-ceramic work



Wirobond® 280 sets new standards in the segment of non-precious metal alloys since it can be fabricated particularly well having a Vickers hardness of 280 HV10.

Summary of other highlights:

- > Extremely corrosion resistant through optimal interaction of the essential elements chrome and molybdenum
- > Free of nickel and beryllium
- > Biocompatibility analyzed by neutral institute and certified by a bio certificate
- > Easy grinding and very good span through reduced hardness
- > Excellent melting and casting properties
- > Large resistance for all span widths, broad area of indication
- > No long-term cooling required* even for large spans
- > Secure bonding with ceramics
- > Secure processing based on the proven BEGO system

* Exception: Creation (Amann Girschbach GmbH), Reflex® (Wieland Dental + Technik GmbH & Co. KG)

Ideal processing properties – Wirobond® 280 – the name stands for program

The special composition gives a low and convenient Vickers hardness of 280 (HV10) and an outstanding processing capability; therefore, the dental technician can finish and mill Wirobond® 280 with genuine ease. Wirobond® 280 also sets new standards for other processing parameters. It has good melting properties, the casting time can be easily determined and it nearly flows without residues from the melting crucible, thereby prolonging the life of the crucible and lowering operating costs. The optimized coefficient of thermal expansion allows to regularly cool Wirobond® 280 after the burnings, also for large spans. The ceramic bonding is tested with a

multitude of commercially available ceramics and is very good.

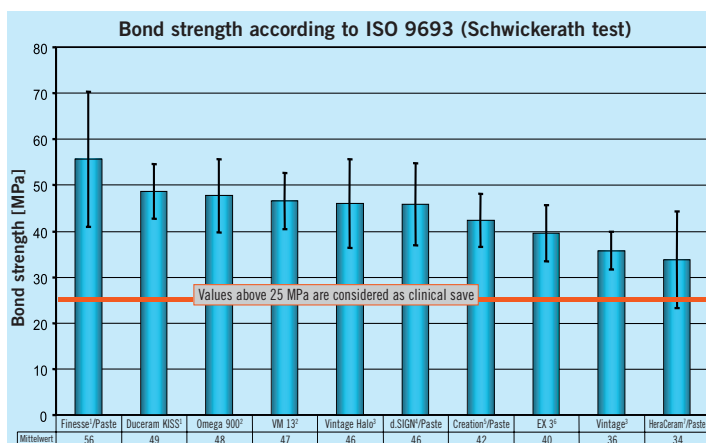
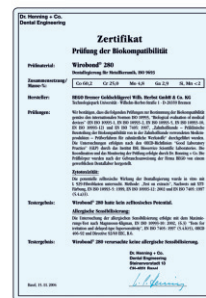
Scrutinizing Wirobond® 280

BEGO has more than 35 years experience in the area of venerable non-precious metal alloys and a worldwide significant position in this alloy segment.

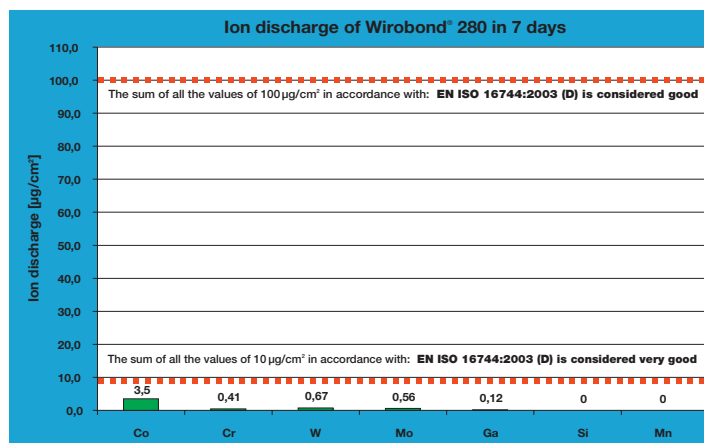
The high corrosion resistance of Wirobond® 280 is reached through the interaction of chrome, tungsten and the essential molybdenum. The alloy forms a dense, firmly adhering passive layer and therefore guarantees the biological compatibility. A neutral institute has analyzed Wirobond® 280 and certified the safety of this alloy with a bio certificate. We can provide you with the certificate upon request (download: www.bego.com).

Wirobond® 280 – the first choice for dental technician, dentist and patient

For patients, Wirobond® 280 is a secure and low-cost option to receive a high-quality dental treatment. Therefore, it does not matter whether it is a conventional, firmly seated treatment, a combination work or an implant supported supra construction – nothing is impossible.



The ceramic materials are products of the companies ¹DequDent, ²VITA, ³Shofu, ⁴Ivoclar, ⁵Amann Girrbach, ⁶Noritake, ⁷Heraeus Kulzer. If not more detailed, powder opaque was used.



Subject to modifications in design, scope of delivery and composition. Whether given verbally, in writing or through practical instructions, process-related data and recommendations are based upon our own experience and trials and can only be regarded as standard values. Status as of: 30.02.08.

Wirobond® 280

Alloy characteristics:

standard values

Colour	silver
Density [g/cm ³]	8.5
Melting interval [°C]	1360 – 1400
Casting temperature [°C]	approx. 1500
Coefficient of expansion [10 ⁻⁶ K ⁻¹] (25-500°C)	14.0
	(25-600°C) 14.2
Ductile yield (A ₅) [%]	14
Elongation limit (R _{p0,2}) [MPa]	540
Tensile strength (R _m) [MPa]	680
Modulus of elasticity [GPa]	approx. 220
Vickers hardness (HV10) after firing	280
CE 0197	ISO 22674 • ISO 9693

Composition in % by weight:

Wirobond® 280

Co 60.2 • Cr 25 • W 6.2 • Mo 4.8 • Ga 2.9 • Si, Mn

Availability:	Unit	Content	Order No.
Wirobond® 280	1 pack	1000 g	50134
	1 pack	250 g	50135
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
Wirobond® soldering rods	1 pack	4 g	52622
WGL solder	1 pack	5 g	61079
Certificate			82738