



Worldwide proven
reliability in use
since 1988

Wiron® 99

Premium NiCr alloy for metal-to-ceramic work or composite veneering
– beryllium-free

- Reliable metal-ceramic bond – minimises the risk of splitting off at a later date
- Low hardness of 195 HV10 – for easy, quick trimming and polishing to a high-lustre
- Problem-free processing in all induction casting machines – easy casting point recognition
- High degree of intraoral comfort for patients due to high thermal stability
- Biocompatible and corrosion-resistant

The superior properties

Wiron® 99 has been processed successfully for over 30 years. The composition guarantees reliable recognition of the casting point both with centrifugal casting machines and vacuum-pressure casting machines, e.g. Nautilus® or Fornax®

The advantages for you:

- Easy casting
- Reliable further processing

The hardness of Wiron® 99 (195 HV10) is the same as that of a high-gold-content alloy.

The advantage for you:

- Easy, quick trimming
- Polishing to a high-lustre

The Young's modulus – decisive for the load-bearing capacity of crown and bridge alloys – is about twice as high as that of precious metal.

The advantages for you:

- The load-bearing capacity of a bridge is twice as high with the same design
- Reliable protection against deformation by masticatory forces

The high thermal stability provides a high degree of safety against deformation when welding, soldering and firing the porcelain.

The advantage for you:

- No distortion
- Perfectly fitting frameworks

The low thermal conductivity of Wiron® 99 protects the pulp of the abutment teeth against unpleasant temperature stimuli in the patient's mouth.

The advantage for you:

- Provides increased intraoral comfort, ensuring complete patient satisfaction

Precise fit

Optimum castings in terms of accuracy, fit and surface quality can be achieved using Bellavest® SH, a BEGO precision casting investment. Bellavest® SH is a shock-heat investment for crowns and bridges that also produces precise castings with standard preheating.

The advantage for you:

- Quick, economic working because time-consuming adjustments are no longer required

Reliable porcelain veneering

The outstanding bond strength between Wiron® 99 and porcelain is the result of close collaboration with leading porcelain manufacturer

The advantages for you:

- Reliable veneering with all commercially available porcelains with a corresponding CTE value
- No additional, expensive bonder required
- Durable, reliable bond minimises the risk of splitting off intraorally at a later date

Biocompatible and corrosion-resistant

Chromium and molybdenum ensure the excellent corrosion behaviour of Wiron® 99.

The advantages for you:

- No cytotoxic potential, no skin irritation or allergic sensitisation.
- Guarantee of the biocompatibility
- High degree of safety for the dentist and patient (biocertificate available at www.bego.com)



Wiron® 99 is the result of over 30 years of clinical experience and systematic development

Product details	
Alloy characteristics	Standard values
• Alloy type (ISO 22674)	3
• Density	8.3 g/cm ³
• Preheating temperature	900–1000 °C
• Solidus, liquidus temperature	1310, 1360 °C
• Casting temperature approx.	1450 °C
• Young's modulus	170 GPa
• Proof strength (R _{p0.2})	335 MPa
• Ultimate strength (R _m)	655 MPa
• Elongation after fracture (A ₅)	43 %
• Vickers hardness (HV10)	195 HV10
• Coefficient of thermal expansion (CTE) 25–500 °C, 10 ⁻⁶ K ⁻¹	13.9

Composition in % by mass

- Ni 65.6 · Cr 22.5 · Mo 9.5 · Si 1.0 · Ce · Mn · Nb

Accessories and	Presentation	Content	REF
• Wiron® 99	1 Pack	1000 g	50225
• Wiron® 99	1 Pack	250 g	50226
• Wiroweld NC, Ni-Cr laser wire, carbon-free	1 Roll	5.5 m – 4 g	50006
• Wiron® soldering rods	1 Pack	4 g	52625
• Bellavest® SH			
1 carton 4.8 kg	160 g bags	30 pieces	54247
1 carton 12.8 kg	160 g bags	80 pieces	54252
• BegoSol® HE mixing liquid			
1 bottle		1 l	51095
1 canister		5 l	51096

ISO 22674 · ISO 9693-1

We reserve the right to make changes in the design, pack contents and composition. Statements and recommendations on technique are based on our experience and tests and should be regarded as guidelines. Date of issue: March 2017.