



Wirobond® SG

Cobalt-chrome metal-ceramic alloy

- Nickel- and beryllium-free
- Reliable use even in problematic cases and restorations with large bridge spans
- Simple and reliable casting time recognition thanks to optimal silicon content
- Normal cooling facilitates economical and effective working
- Reliable metal-ceramic bond with no need for an additional, expensive bonder
- Biocompatible and corrosion-resistant

Safe dimensions in the non-precious metal-ceramic technique

As a Type 4 alloy Wirobond® SG fulfils all criteria of the ISO 22674 and ISO 9693-1 Standards.

The advantages for you:

- A wide range of dental restorations are covered with only one alloy, e.g. veneered crowns or removable partial dentures
- Due to the high strength of the alloy you are always on the safe side, even with problematic situations such as long-span bridges

Reliable processing

Wirobond® SG alloy contains silicon which ensures reduction of the oxidation during melting.

The advantages for you:

- Precise recognition of the casting point both with centrifugal casting machines and vacuum pressure casting machines, e.g. Nautilus® or Fornax®
- The very good flow behaviour ensures smooth and accurately fitting castings
- Easy casting and reliable further processing

Reliable porcelain veneering

Wirobond® SG can be veneered with composite or porcelain. All conventional veneering porcelains with corresponding CTE values can be used.

The advantages for you:

- Wirobond® SG allows normal cooling (depending on the porcelain) and provides effective, economic processing in the laboratory
- Reliable metal-ceramic bond without additional expensive bonder
- Minimises the risk of splitting off intraorally at a later date



Exceptionally good bond strength with all leading porcelains

Optimised for laser-welding technology

Wirobond® SG is ideal for laser-welding due to the optimal, carbon-free composition. Solder and welding joints can be polished very easily and are no longer visible after polishing.

The advantage for you:

- Reliable, durable and biocompatible joint when soldering and laser-welding

Biocompatibility

Wirobond® SG has excellent corrosion behaviour.

The advantages for you:

- No cytotoxic potential, no skin irritations or allergic sensitisation
- Safety for the dentist and patient
- Biocertificate available at www.bego.com

Product details	
Alloy characteristics	Standard values
• Alloy type (ISO 22674)	4
• Density	8.6 g/cm ³
• Preheating temperature	900–1000 °C
• Solidus, liquidus temperature	1385, 1420 °C
• Casting temperature approx.	1480 °C
• Young's modulus	200 GPa
• Proof strength (R _{p0.2})	485 MPa
• Ultimate strength (R _m)	630 MPa
• Elongation after fracture (A ₅)	11 %
• Vickers hardness (HV10)	305 HV10
• Coefficient of thermal expansion (CTE) 25–500 °C, 10 ⁻⁶ K ⁻¹	14.3
Composition in % by mass	
• Co 63.8 · Cr 24.8 · W 5.3 · Mo 5.1 · Si 1.0	

Availability	Presentation	Content	REF
• Wirobond® SG	1 Pack	1000 g	50128
• Wirobond® SG	1 Pack	250 g	50127

Accessories			
• Wiroweld CoCr laser wire, carbon-free			
Ø 0.5 mm	1 Pack	1.5 m – 2 g	50005
Ø 0.35 mm	1 Pack	2 m – 1.5 g	50003
• Wirobond® soldering rods	1 Pack	4 g	52622

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