



Wiron® light

**Non-precious alloy for metal-ceramics with light oxide
– free of beryllium**

- Easy casting: low casting temperature of 1350 °C, low preheating temperature of 800 °C
- Easy trimming: light, thin oxide
- Reliable processing: first-class strength values
- Biocompatible and highly corrosion-resistant

Wiron® light – easy casting

The 6 g ingots can be melted using a flame or induction heating and cast at a clearly recognisable casting point using centrifugal or vacuum-pressure casting. The outstanding melting properties ensure reliable flow of the alloy. The lowered preheating temperature of the casting ring to only 800 °C produces a very smooth surface and reduces the electricity costs and time required.

Wiron® light – easy trimming

The lowered casting temperature of only 1350 °C and the preheating temperature of only 800 °C reduce the reaction of the alloy with the investment. This results in a smooth surface and easy trimming. The oxide of Wiron® light is much lighter compared with conventional NiCr alloys and can be removed very easily and quickly (see Fig.)

Wiron® light – optimal properties

The outstanding strength values enable slender restorations, which still guarantee a high degree of reliability. The accuracy of fit of Wiron® light is excellent due to the low casting temperature. A large number of porcelains on the market have exceptionally high bond strength values when veneering and using normal cooling. We recommend Diapol high-quality diamond paste for producing a superior high-lustre polish. Processing according to the Wiron® system provides additional reliability.



Oxide colour with Wiron® light after devesting

Oxide colour with conventional NiCr alloys after devesting

Wiron® light – biocompatibility

Wiron® light is biocompatible and does not have any cytotoxic potential. A biocertificate is available at www.bego.com.



Wiron® light – for high-quality restorations

| Product details | | | |
|--|-----------------------|-------------|-------|
| Alloy characteristics | Standard values | | |
| • Alloy type (ISO 22674) | 4 | | |
| • Density | 8.2 g/cm ³ | | |
| • Preheating temperature | 800 °C | | |
| • Solidus, liquidus temperature | 1210, 1280 °C | | |
| • Casting temperature approx. | 1350 °C | | |
| • Young's modulus | 185 GPa | | |
| • Proof strength (R _{p0.2}) | 460 MPa | | |
| • Ultimate strength (R _m) | 860 MPa | | |
| • Elongation after fracture (A ₅) | 9 % | | |
| • Vickers hardness (HV10) | 280 HV10 | | |
| • Coefficient of thermal expansion (CTE) 25–500 °C, 10 ⁻⁶ K ⁻¹ | 13.7 | | |
| Composition in % by mass | | | |
| • Co 64.6 · Cr 22.0 · Mo 10.0 · Si 2.1 · B · Mn · Nb | | | |
| Availability | Presentation | Content | REF |
| • Wirobond® light | 1 Pack | 1000 g | 50270 |
| • Wirobond® light | 1 Pack | 250 g | 50272 |
| Accessories | | | |
| • Wiroweld NC, Ni-Cr laser wire, free of carbon | 1 Roll | 5.5 m – 4 g | 50006 |
| • Wiron® soldering rods | 1 Pack | 4 g | 52625 |
| • Diapol Diamant polishing compound | 1 Pack | 4 g | 52305 |

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.