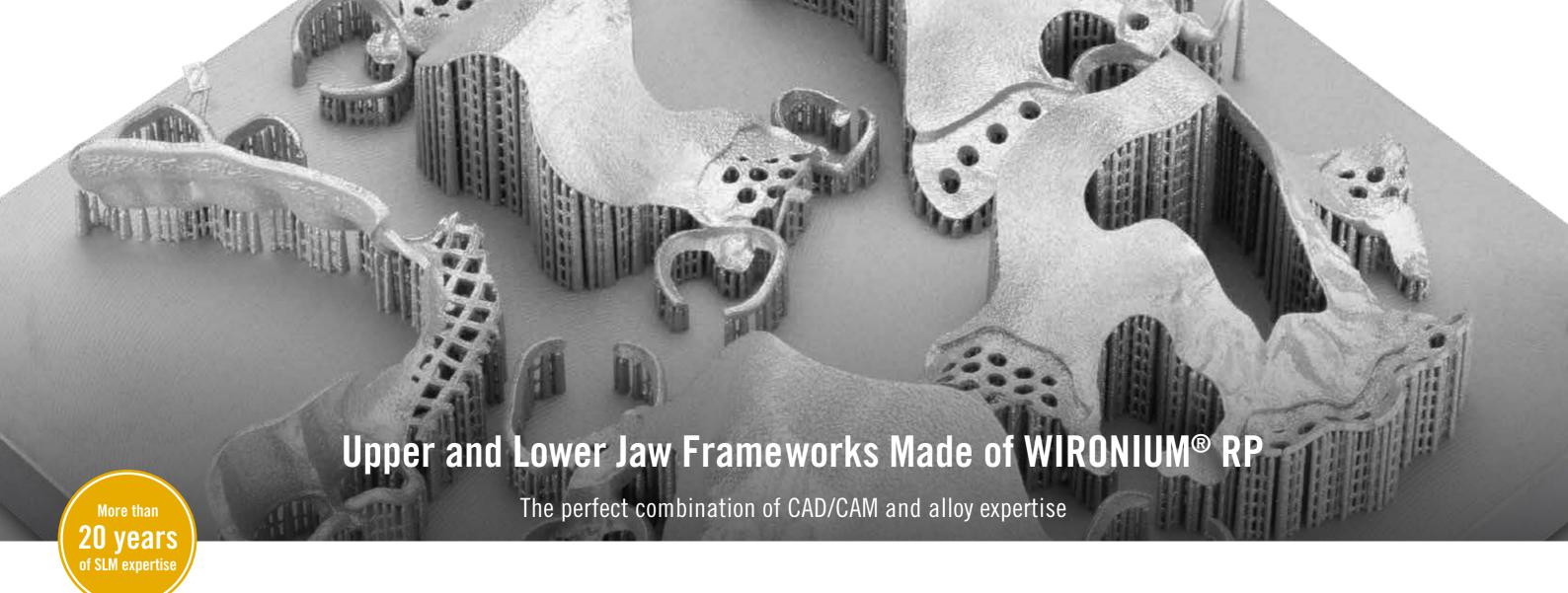


# REMOVABLE PARTIAL DENTURE FRAMEWORKS MADE OF WIRONIUM® RP

The perfect combination of CAD/CAM and alloy expertise





#### The CAD/CAM processing solution: Selective Laser Melting (SLM)

- 3D printing with metal powder developed and patented by BEGO for the dental branch
- CAD data is used to control a laser, which melts metallic powder layer by layer to build up the frameworks
- Offers very good quality in the production of individual, complex metal frameworks



### The alloy: WIRONIUM® RP

- Non precious metal alloy for the additive production of removable partial denture (RPD) frameworks
- Further development of the casting alloy WIRONIUM®, which has been proven millions of times
- Specially developed for the digital production of dental RPD frameworks using the Selective Laser Melting process
- Biocompatible and corrosion resistant
- Approval as a class IIa\* medical device is proof of our claim to comprehensively qualify our materials for dental use

#### **Product details**

| Chemical composition in %                           |                       |
|---|-----------------------|
| Co 66.2 $\cdot$ Cr 28.2 $\cdot$ Mo 5.5 $\cdot$ N <1 |                       |
| Physical material data                              |                       |
| Density   | 8.5 g/cm <sup>3</sup> |
| Modulus of elasticity                               | 235 GPa               |
| 0.2 % Elongation limit (R <sub>p0,2</sub> )         | 800 MPa               |
| Tensile strength (R <sub>m</sub> )                  | 1,300 MPa             |
| Ductile yield (A5)                                  | 13 %                  |
| Hardness (HV10)                                     | 395                   |
|   |                       |

#### Accessories

| Availability                                   | Contents | REF   |
|--|----------|-------|
| Laser wire, Wiroweld<br>Ø 0.35 mm, 2 m – 1.5 g | 1 piece  | 50003 |
| Laser wire, Wiroweld<br>Ø 0.5 mm, 1.5 m – 2 g  | 1 piece  | 50005 |
| Cobalt-chrome solder                           | 1 piece  | 52520 |
| Flux, Minoxyd                                  | 1 piece  | 52530 |

\* Class IIa medical device as defined by Directive 93/42/EEC.
Pictures and illustrations are exemplary. Colors, symbols, design, and information on the labels and/or packaging shown may differ from reality.

# The Product Highlights at a Glance

### REAL. PERFECT. FITTING.

 Industrial production process with heat treatment adapted to the alloy ensures an above-average fit of SLM-fabricated RPD frameworks for upper and lower jaws — even in complex cases



## REAL. GOOD. ACTIVATION.

- High ductility of the material allows activation of the clamps as with cast components and thus a comfortable insertion and removal of the RPD
- High fatigue strength of the clamps due to homogeneous and pore-free material structure

## REAL. EFFICENT. SOLUTION.

- High efficiency and design freedom through digitization of conventional workflows (CAD design and CAM production)
- Sustainability: Significantly more resource-efficient work and lower costs compared to other manufacturing technologies such as milling

## REAL. SUPER. SHINY.

- Excellent polishing properties, comparable to those of cast components
- On request with high-gloss polish for minimal reworking in the laboratory



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