



remanium® star CL powered by Dentaaurum

CoCrW-alloy (powder) acc. to EN ISO 9693 / DIN EN ISO 22674, Type 5



remanium® star CL is a CoCrW alloy for the production of metallic restorations by means of the metal laser melting process.



RANGE OF APPLICATION

Crowns and bridges, frames for metal ceramic veneering, cast partials, primary – and secondary parts for combined restorations.

CHEMICAL COMPOSITION

| Component | Mass (%) |
|---|----------|
| Co | 60,5 |
| Cr | 28 |
| W | 9 |
| Si | 1,5 |
| Other elements <1 %: Mn, N, Nb, Fe. free from nickel, beryllium and gallium | |

TECHNICAL DATA IN LINE WITH DIN EN ISO 9693 / DIN EN ISO 22674
AFTER RECOMMENDED HEAT TREATMENT

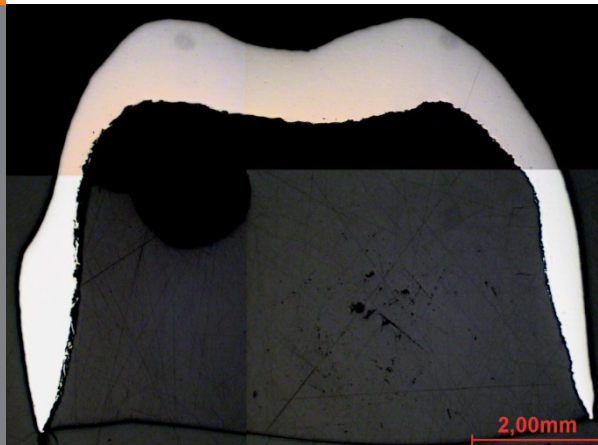
| | |
|--|---|
| Yield Strength $R_{p0,2}$ | 635 N/mm ² |
| Tensile Strength R_m | 1030 N/mm ² |
| Elongation at fracture A_5 | 10 % |
| Young's modulus | 230.000 N/mm ² |
| Melting range Δ | 1320-1420°C |
| Density ρ | 8,6 g/cm ³ |
| Coefficient of thermal expansion TEC (25-500°C) | 14,1 x 10 ⁻⁶ K ⁻¹ |
| Colour | white |
| Metal-ceramic bond strength acc. to EN ISO 9693, 3-Pt.-bending test (min. 25 N/mm ² acc. to EN ISO 9693) | 40 N/mm ² (Carmen CCS, Dentaurum) |
| Type | 5 |
| Biocompatibility, L 929-Proliferation acc. to EN ISO 10993-5, -12, ISO 9363-1, LM SOP 4-06-01 | No deliberation of cell toxic active substances |
| Corrosion resistance, static immersion test acc. to EN ISO 10271 (max. 200 µg/cm ² x 7d acc. to EN ISO 22674) | Ion release 3,5 µg/cm ² x 7d |

remanium®
Star CL

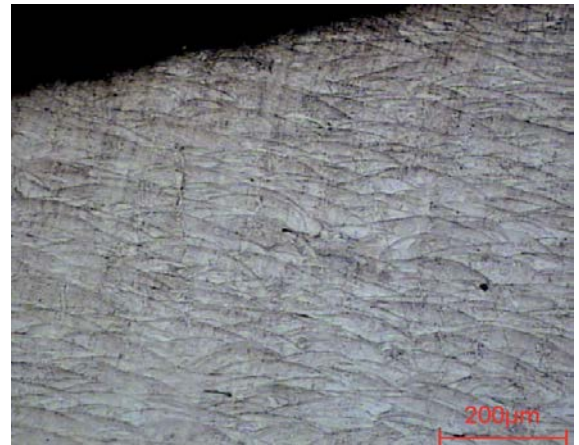
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MICROSECTION

3-unit bridge (16 x)



3-unit bridge etched (100 x)



HEAT TREATMENT

Perform heat treatment under an argon atmosphere. Heat up to 1150°C. Maintain temperature for 1 hour. Allow the components to cool down to 300°C in the oven.

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MICROSTRUCTURE

Components made from the cobalt-chromium alloy remanium® star CL display a homogeneous, pore-free structure after they are constructed by means of the metal laser melting process additive manufacturing.

Innovation group