

## remanium® star CL powered by Dentaurum

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

CE 0483

remanium® star CL is a CoCrW alloy for the production of metallic restorations by means of the metal laser melting process. remanium® star CL is approved for use on laser melting machines from the company Concept Laser GmbH.

27

Co

58,933

### 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	

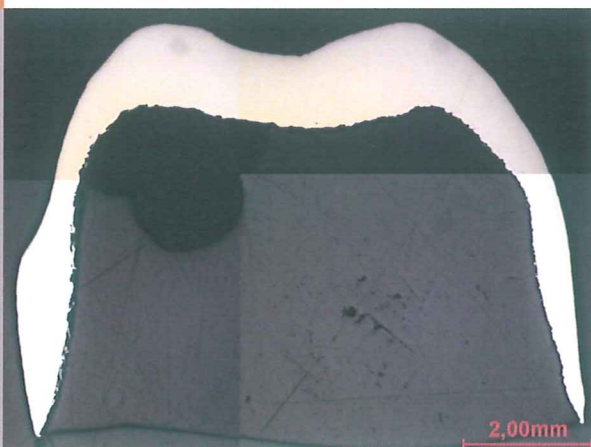
TECHNICAL DATA IN LINE WITH DIN EN ISO 9693 / DIN EN ISO 22674  
AFTER RECOMMENDED HEAT TREATMENT

Yield Strength $R_{p0,2}$	635 MPa
Tensile Strength $R_m$	1030 MPa
Elongation at fracture $A_5$	10 %
Modulus of elasticity E	230.000 MPa
Melting range $\Delta$	1320-1420°C
Density $\rho$	8,6 g/cm <sup>3</sup>
Coefficient of thermal expansion TEC (25-500°C)	14,1 x 10 <sup>-6</sup> K <sup>-1</sup>
Colour	white
Metal- ceramic bond strength acc. to EN ISO 9693, 3-Pt.- bending test (min. 25 MPa acc. to EN ISO 9693)	40 MPa (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 <sup>2</sup> x 7d acc. to EN ISO 22674)	Ion release 3,5 µg/cm <sup>2</sup> x 7d

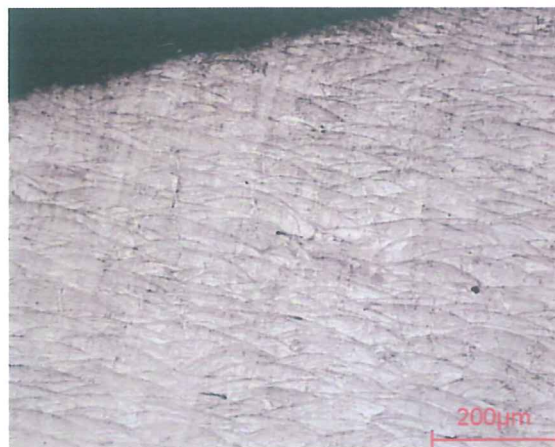
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### MICROSECTION

3-unit bridge (16 x)



3-unit bridge etched (100 x)



### HEAT TREATMENT

Perform heat treatment under an argon atmosphere. Heat up at a rate of 400°C/hour to 1150°C. Maintain temperature for 1 hour. Allow the components to cool down to 300°C in the oven.

### 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 LaserCUSING®.

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