

remanium® star CL powered by Dentaaurum

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.

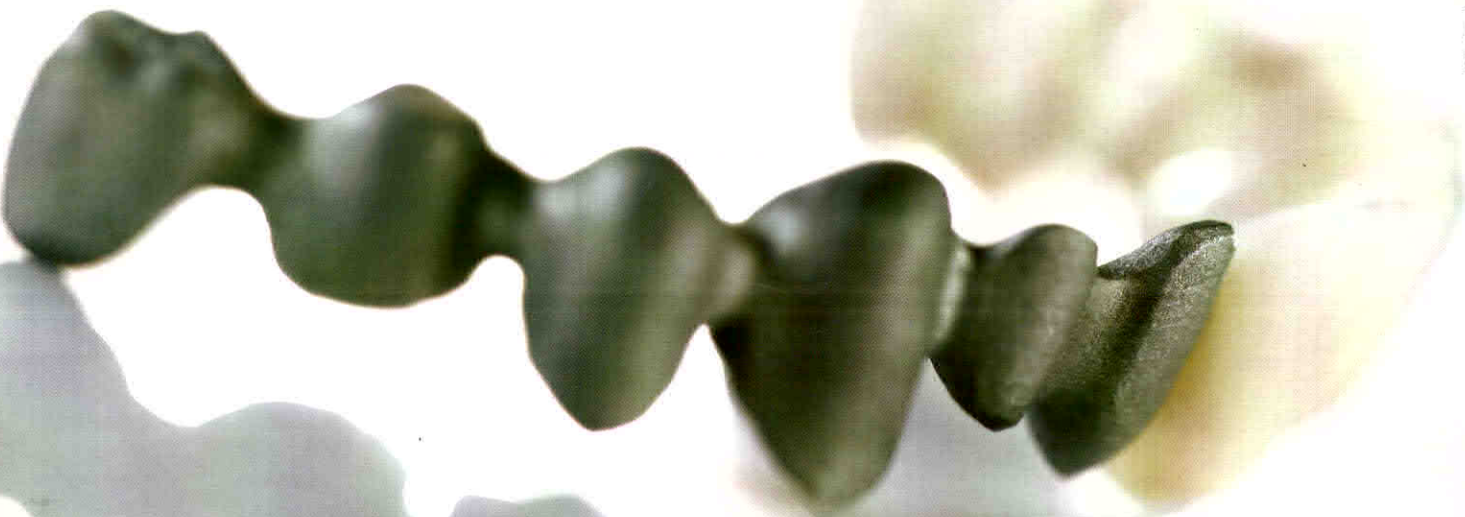
27

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

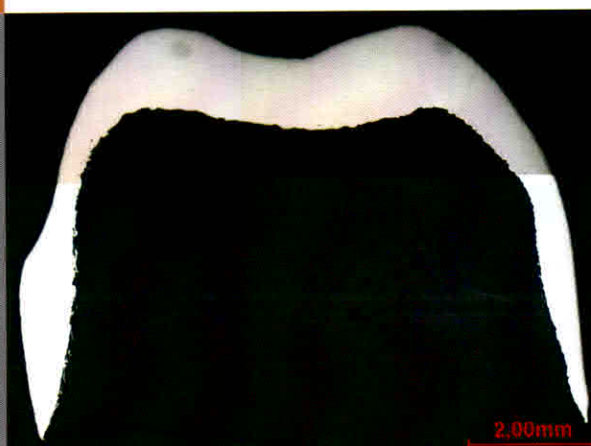
Yield Strength $R_{p0,2}$	635 MPa
Tensile Strength R_m	1030 MPa
Elongation at fracture A_5	10 %
Modulus of elasticity E	230.000 MPa
Melting range Δ	1320-1420°C
Density ρ	8,6 g/cm ³
Coefficient of thermal expansion TEC (25-500°C)	14,1 x 10 ⁻⁶ K ⁻¹
Colour	white
Metal- ceramic bond strength acc. to EN ISO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

Photo: www.limamedia.de - Microsection: Dentaurum GmbH & Co KG | Allwars - www.brainloopw-design.de
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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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