CONCEPTLASER

rematitan® CL powered by Dentaurum

Titanium alloy (powder) acc. to EN ISO 9693/DIN EN ISO 22674, Type 4

CE 0483

With an appropriate approval* rematitan® CL can be used for production of metallic restaurations by means of the metal laser melting process.

22
Ti
47,88

RANGE OF APPLICATION

With an appropriate approval* rematitan® CL can be used for production of crowns and bridges, frames for metal ceramic veneering, cast partials, primary – and secondary parts for combined restorations as well as for implant supraconstructions.

LaserCUSING® | Source: LAC - Laser Add Center GmbH

CHEMICAL COMPOSITION

Component	Mass (%)
Ti	90
Al	6
V	4
Other elements <1 %: N, C, H, Fe, O	

11/2016 | Subject to technical changes.
Title photo: jung-2.com
Microsections: Dentaurm GmbH & Co. KG
Artwork: brandnew-design.de

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

Yield Strength $R_{p0,2}$	950 MPa
Tensile Strenght R_m	1005 MPa
Elongation at fracture A_5	10 %
Modulus of elasticity E	115.000 MPa
Melting range Δ	1604-1655°C
Density ρ	4,5 g/cm^3
Coefficient of thermal expansion TEC (25-500°C)	10,16 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)	37 MPa (Triceram, Dentaurum)
Type	4
Biocompatibility, L 929-Proliferation acc. to EN ISO 10993-5, -12	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 1,41 µg/cm^2 x 7d

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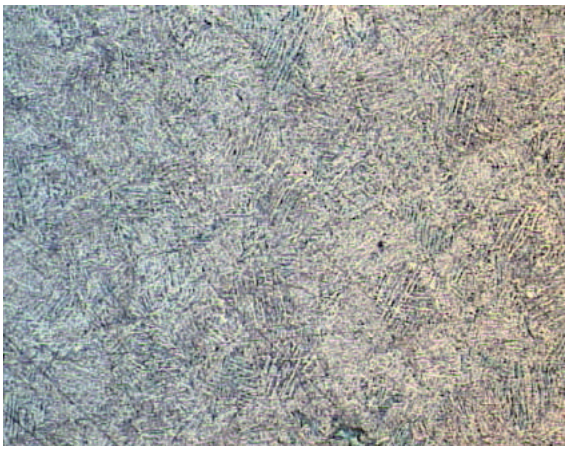
MICROSECTION

Test piece etched (20 x)

Test piece etched (100 x)



HEAT TREATMENT

Perform heat treatment under an argon atmosphere. Heat up within 4 hours to 820°C. Maintain temperature for 1,5 hours. Allow the components to cool down to 500°C in the oven.

MICROSTRUCTURE

Components made from the titanium alloy rematitan® CL display a homogeneous, pore-free structure after they are constructed by means of the metal laser melting process LaserCUSING®.

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