

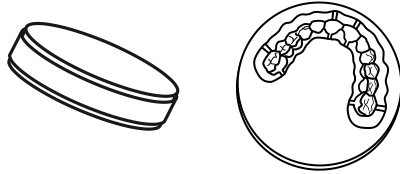
Ergitan® 3.7165 ELI (Ti6Al-4V) Data Sheet

CAD/CAM Blanks Dental

Medical Alloys



Zapp is Certified to ISO 9001



Ergitan® 3.7165 ELI

Ergitan® 3.7165 ELI (Extra-Low-Interstitial) is a high strength titanium alloy providing a very good strength-to-density ratio. This alloy has an outstanding biocompatibility and is accepted by the human body because of its non-toxic and non-allergic elements. It is the most suitable alloy for dental abutments. CAD/CAM blanks are available from stock or can be produced according to customer-specific drawings.

Typical fields of application

- Crowns
- Bridges
- Individual designed constructions

Corresponding standards

- ASTM F 136 (UNS R56401)

Guideline

- Following DIN EN ISO 22674:2006, Type 4

Magnetism

Ergitan® 3.7165 ELI is not magnetizable.

Corrosion resistance

Ergitan® 3.7165 ELI is characterized by extra-ordinary corrosion resistance used for dental applications. Due to the formation of a dense oxide layer, Ergitan® 3.7165 ELI shows good corrosion resistance in an oxidizing environment.

Ergitan® 3.7165 ELI has a clearly reduced rate of corrosion-induced crack growth.

Machining

In annealed condition Ergitan® 3.7165 ELI fulfills all requirements for most efficient machining.

Chemical composition *

Ti	Al	V	Fe	O	H	C	N
90.00	5.5-6.5	3.5-4.5	<0.25	<0.13	<0.012	<0.08	<0.05

* Average in mass -%

Mechanical properties

Tensile Strength	[MPa]	Min. 860
Yield Strength	[MPa]	Min. 760
Hardness HV10		280 - 330

Physical properties

Modulus of Elasticity E at 20 °C [GPa]	110
Specific Density [kg/dm³]	4.4
Thermal Conductivity at 20 °C [W/m*K]	6.6
CTE Middle lin. Coefficient of Thermal Expansion [10 ⁻⁶ *K ⁻¹] 20 - 500 °C	10.3
Specific Heat at 20 °C [kJ/kg*°C]	526
Electric Resistivity ρ at 20 °C [Ω*mm²/m]	1.7
Oxidation Temperature	Hot oxidation at temperatures of 400 and 800 °C

Delivery conditions*

Range of Dimension	98 – 100 mm
Finish	Processed surface
Shape	<input type="checkbox"/> Round <input type="checkbox"/> Round with step <input type="checkbox"/> Acc. to drawing
Thickness	8.00 10.00 12.00 13.50 14.00 15.00 16.00 17.50 18.00 20.00 ... up to 28.00
Service Conditions	<input type="checkbox"/> Labeled or laser marked on demand <input type="checkbox"/> Single or multiple packing units

* All others on request

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Further information regarding our products and locations are available in our image brochure and under www.zapp.com

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