

TECHNICAL DATA

Standards

DIN Material Nr. 3.7165

ASTM :	Ti-Grade 23 6 Al-4V ELI
UNS :	R56401

General Properties / Field of Applications

DSI M Titan Grade5 is a Laser Welding Wire Ti-Grade 23 ELI (Extra-Low Interstitials) is a variant of Ti-Grade 5. It's used in medical technology because of its good biocompatibility and excellent fracture toughness and crack propagation behaviour. It maintains its good toughness even at low temperatures down to -253°C. These properties, as well as its low elastic modulus and good fatigue strength, are due to the alloy's relatively low contents of tramp elements such as oxygen and iron.

Mechanical Properties

Yield strength $R_{p0.2}$	[MPa] / [N/mm ²]	760
Tensile strength R_m	[MPa] / [N/mm ²]	825 - 860
Elongation A ($L_0 = 5d_0$)	[%]	8 - 10
Modulus of elasticity	[kN/mm]	110

Chemical Composition (Standard Values in %)

C	V	N	Ti	Al	Fe	O	H
≤ 0.08	3.5-4.5	≤ 0.25	Rest	5.5-6.5	≤ 0.25	≤ 0.13	≤ 0.015

Packaging and available Sizes*

Spool : MA125 mm	Ø mm	0.3 / 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2
Rod : 500 / 1000 mm	Ø mm	0.3 / 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2

* Other dimensions available on request

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