

Titanium Ti6Al4V.

MATERIAL: TITANIUM ALLOY / Ti6Al4V / Gr. 5

Material data sheet for titanium alloy Ti6Al4V parts produced by Electron Beam Melting.

Material properties	Value	Unit
Max. tensile strength	1020	MPa
Modulus of elasticity	120	GPa
Yield strength (RP 0.2)	950	MPa
Elongation at break	14	%
Reduction of area	40	%
Hardness by Rockwell	33	HRC
Fatigue strength (600 MPa)	> 10 000 000	Cycles

Process-related properties	Value	Unit
Roughness (Ra / Rz)	15 - 25 / 80 - 100	µm
Achievable part accuracy	± 200 / ± 0.4 % of nom.	µm

SPECIAL FEATURES:

Depending on the geometry, temperature gradients in the construction process can lead to distortion of the component.

For surfaces which are to be finished mechanically, an allowance of at least 1 mm is recommended.

Any part density of more than 99.5 % needs to be HIP-processed.
We are able to perform this post-processing method on request.