

Titanium (Ti6Al4V)

Ti6Al4V is a lightweight titanium alloy with excellent mechanical strength and superior corrosion resistance, making it ideal for functional prototypes and high-performance end-use parts.



Parameter	Ti6AL4V Standard	Ti6AL4V Performance	Unit	Standard
Density	>4.36	>4.39	g/cm ³	WGE-Prod-067EN
Relative Density	>99	>99.5	%	WGE-Prod-067EN
Tensile Strength	>900*	>980	Mpa	DIN EN2002-1
Yield Strength	>830*	>900	MPa	DIN EN2002-1
E-Modulus	110	110	GPa	DIN EN2002-1
Elongation at Break	>10*	>14	%	DIN EN2002-1
Roughness Ra	<20	<20	µm	ISO 4287 / AITM 1-00070
Roughness Rz	<80	<80	µm	ISO 4287 / AITM 1-00070
Hardness	>310	>340	HV	ISO 6597-1:03-2006

Actual values may vary with build conditions.

Strong tensions due to part geometry may distort parts, potentially leading to greater deviation in values. Values for surface roughness depend on the orientation of the surface; downward-facing surfaces and surfaces with support will be rougher. These values show the material characteristics with additional stress relief heat treatment. Extra heat treatment steps, hot isostatic pressing (HIP), or aging for even higher mechanical properties may be possible, e.g. for serial-produced parts. Please [get in touch with our team](#) for more information.

*Values for tensile specimens according to DIN EN ISO 6892 status as built

For more information on this material, please visit mtls.am/titanium.

