



**PROPERTIES**

**TITANIUM**

Titanium	Density	Beta Transus (°C)	TS* (MPa)	YS* (MPa)	A (%)	Melting point (+/-15°C)	Examples of uses
<b>T35 – Grade 1</b>	4.51	887	240	170	25	1670	Excellent corrosion resistance, optimum cold forming, excellent weldability
<b>T40 – Grade 2</b>	4.51	912	345	275	20	1660	Good compromise between corrosion strength, cold formability and mechanical strength
<b>T50 – Grade 3</b>	4.51	921	450	380	18	1680	Better mechanical strength than T35 and T40 Excellent weldability and corrosion resistance
<b>T60 – Grade 4</b>	4.54	948	550	485	15	1660	Better mechanical strength than T50, to the detriment to cold forming
<b>TA6V – Grade 5</b>	4.43	998	895	825	10	1650	The most widely used Titanium alloy. Good strength / density ratio
<b>TA6V ELI</b>	4.43	982	860	780	10	1650	Extensively used in implantology (biocompatibility) Fairly good weldability
<b>Ti 6Al 7Nb</b>	4.52		900	800	10		Widely used for implants
<b>T40Pd – Grade 7</b>	4.51	912	345	275	20	1660	The best resistance to corrosion of all titaniums. Excellent weldability
<b>Ti3Al2.5V – Grade 9</b>	4.48	935	620	485	15	1700	Good mechanical strength linked to better forming than TA6V
<b>T35Pd – Grade 11</b>	4.51	890	240	170	24	1660	Optimal cold forming. Excellent weldability
<b>Ti0.3Mo0.8Ni – Grade 12</b>	4.48	888	485	345	18	1600	Combines good mechanical strength and good crack corrosion resistance