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Table of Mechanical Properties for (ASTM) - Titanium Plate & Sheet

Grade	Tensile Strength, min		Yield Strength, 0.2% Offset				Elongation in 2 in. or 50 mm, min, %	Bend Test	
			min		max			Under 0.070 in (1.8 mm) in Thickness	0.070 to 0.187 in. (1.8 to 4.75 mm) in Thickness
	ksi	Mpa	ksi	Mpa	ksi	Mpa			
1	35	240	20	138	45	310	24	1.5T	2T
2	50	345	40	275	65	450	20	2T	2.5T
2H	58	400	40	275	65	450	20	2T	2T
3	65	450	55	380	80	550	18	2T	2.5T
4	80	550	70	483	95	655	15	2.5T	3T
5	130	895	120	828	...	...	10 ^{vii}	4.5T	5T
6	120	828	115	793	...	...	10 ^{vii}	4T	4.5T
7	50	345	40	275	65	450	20	2T	2.5T
7H	58	400	40	275	65	450	20	2T	2T
9	90	620	70	483	...	...	15 ^{viii}	2.5T	3T
11	35	240	20	138	45	310	24	1.5T	2T
12	70	483	50	345	...	...	18	2T	2.5T
13	40	275	25	170	...	...	24	1.5T	2T
14	60	410	40	275	...	...	20	2T	2.5T
15	70	483	55	380	...	...	18	2T	2.5T
16	50	345	40	275	65	450	20	2T	2.5T
16H	58	400	40	275	65	450	20	2T	2T
17	35	240	25	170	45	310	24	1.5T	2T
18	90	620	70	483	...	...	15 ^{viii}	2.5T	3T
19 ⁱⁱ	115	793	110	759	...	...	15	3T	3T
20 ⁱⁱ	115	793	110	759	...	...	15	3T	3T
21 ⁱⁱ	115	793	110	759	...	...	15	3T	3T
23 ⁱⁱ	120	828	110	759	...	...	10	4.5T	5T
24	130	895	120	828	...	...	10	4.5T	5T
25	130	895	120	828	...	...	10	4.5T	5T
26	50	345	40	275	65	450	20	2T	2.5T
27	35	240	25	170	45	310	24	2T	4T
28	90	620	70	483	...	...	15	2.5T	3T
29	120	828	110	759	...	...	10	4.5T	5T
30	50	345	40	275	65	450	20	2T	2.5T
31	65	450	55	380	80	550	18	2T	2.5T
32	100	689	85	586	...	...	10 ^{vii}	3.5T	4.5T
33	50	345	40	275	65	450	20	2T	2.5T
34	65	450	55	380	80	550	18	2T	2.5T
35	130	895	120	828			5	8T	8T
36	65	450	60	410	95	655	10	4.5T	5T
37	50	345	31	215	65	450	20	2T	2.5T
38	130	895	115	794			10	4T	4.5T

Above mechanical limits apply to tests taken both longitudinal and transverse to the direction of rolling. Mechanical properties for conditions other than annealed or plate thickness over 1 inch may be established by agreement between the manufacturer and the purchaser.

"T" equals the thickness of the bend test specimen. Bend tests are not applicable to material over 0.187 in (4.75 min) in thickness.

ii) Properties for solution treated condition. Material is most often purchased and supplied in the solution treated condition. Aged material may be available, but is subject to negotiation between purchaser and supplier.

vii) Elongation for Grades 5, 6 and 32 on materials under 0.025 inch in thickness subject to negotiation manufacturer and purchaser.

viii) Elongation for continuous rolled and annealed (strip product from coil) for Grade 9 and Grade 18 shall be 12% minimum in the longitudinal direction and 8% minimum in the transverse direction.