

Common ASTM/ASME Titanium Grades

Grade	Description
Grade 1	Unalloyed titanium, low oxygen, low strength
Grade 2	Unalloyed titanium, standard oxygen, medium strength
Grade 3	Unalloyed titanium, medium oxygen, high strength
Grade 4	Unalloyed titanium, high oxygen, extra high strength
Grade 5	Titanium alloy (6% aluminum, 4% vanadium)
Grade 7	Unalloyed titanium plus 0.12% to 0.25% palladium, standard oxygen, medium strength
Grade 9	Titanium alloy (3% aluminum, 2.5% vanadium), high strength. Mainly aerospace applications
Grade 11	Unalloyed titanium plus 0.12% to 0.25% palladium, low oxygen, low strength
Grade 12	Titanium alloy (0.3% molybdenum, 0.8% nickel), high strength
Grade 13	Titanium alloy (0.5% nickel, 0.05% ruthenium), low oxygen
Grade 14	Titanium alloy (0.5% nickel, 0.05% ruthenium), standard oxygen
Grade 15	Titanium alloy (0.5% nickel, 0.05% ruthenium), medium oxygen
Grade 16	Unalloyed titanium plus 0.04% to 0.08% palladium, standard oxygen, medium strength
Grade 17	Unalloyed titanium plus 0.04% to 0.08% palladium, low oxygen, low strength
Grade 18	Titanium alloy (3% aluminum, 2.5% vanadium plus 0.04% to 0.08% palladium),
Grade 19	Titanium alloy (3% aluminum, 8% vanadium, 6% chromium, 4% zirconium, 4% molybdenum)
Grade 20	Titanium alloy (3% aluminum, 8% vanadium, 6% chromium, 4% zirconium, 4% molybdenum) plus 0.04% to 0.08% palladium
Grade 21	Titanium alloy (15% molybdenum, 3% aluminum, 2.7% niobium, 0.25% silicon)
Grade 23	Titanium alloy (6% aluminum, 4% vanadium, extra low interstitial, ELI)
Grade 24	Titanium alloy (6% aluminum, 4% vanadium) plus 0.04% to 0.08% palladium
Grade 25	Titanium alloy (6% aluminum, 4% vanadium) plus 0.3% to 0.8% nickel and 0.04% to 0.08% palladium
Grade 26	Unalloyed titanium plus 0.08% to 0.14% ruthenium, standard oxygen, medium strength
Grade 27	Unalloyed titanium plus 0.08% to 0.14% ruthenium, low oxygen, low strength
Grade 28	Titanium alloy (3% aluminum, 2.5% vanadium) plus 0.08% to 0.14% ruthenium
Grade 29	Titanium alloy (6% aluminum, 4% vanadium with extra low interstitial elements (ELI) plus 0.08% to 0.14% ruthenium