

Titan Grade 9

Description - Ti-Grade 9, Titanium - 3%Al - 2.5%V

Due to its lower Al- and V-contents the alloy is also referred to as „half 6-4“. Increasing its strength by targeted heat treatment (age hardening) is practically impossible. Its already outstanding corrosion resistance can be further increased by minor additions of Pd (0.05%) or Ru (0.1%).

Application - Aircraft engineering, tennis rackets, bicycle frames, dental technology.

Chemical Composition in %

C	N	Ti	Fe	O	Al	V
≤0.05	≤0.03	Rest	≤0.2	≤0.15	2.5-3.5	2.0-3.0

Standards

Material No.	3.7195
EN Designation	Titan Grade 9 (3Al-2.5V)
ASTM	Ti-Grade 9 (3Al 2.5V)
UNS	R56320

Mechanical Properties 20 °C

0,2% Yield strength Rp, N/mm²	≥520
Tensile strength Rm, N/mm²	≥620
Elongation A5, %	≥15
Modulus of elasticity, kN/mm²	103

Physical Properties 20 °C

Density, g/cm³	4.48
Thermal conductivity, W/m K	8.3
Electrical resistivity, Ω mm²/m	1.27