

Material Name: **Titanium Grade 23** or Grade 5 ELI / UNS R56401 / 3.7165

Applicable Standards: ASTM B265 (Industrial – plates) / ASTM B348 (Industrial-bars)/ ASTM F136 (medical)

General Description

Titanium Grade 23 or Grade 5 ELI (Extra Low interstitials) is a known variant of Titanium gr. 5 and is characterized by a particularly low content of interstitial elements, resulting in even greater strength and improved weldability. These properties make Titanium Grade 5 ELI the preferred choice for high-stress applications, where extreme strength, corrosion resistance, and long life are required. It is frequently used in the medical, aerospace, and high-tech industries, where extremely high mechanical properties and reliability are required.

In the medical field, it's particularly appreciated as it is highly biocompatible and free of toxic or allergenic components. Its high biocompatibility means that the material is well tolerated by the human body, one of the main reasons why it is frequently used in medicine.

Chemical Composition (Typical, %)

C	O	N	H	Fe	Al	V	Ti
≤ 0.08	≤ 0.13	≤ 0.03	≤ 0.012	≤ 0.25	5.50-6.50	3.50-4.50	Balance

Mechanical Properties (Typical, Annealed)

Tensile Strength	Yield Strength (0.2%)	Elongation
≥ 828 MPa	≥ 759 MPa	≥ 10%

Available Product Forms

- Bars & Wires
- Plates