

Titanium Grade 2 (3.7035)

Titanium Grade 2, also known as pure titanium or 3.7035, is known for its excellent corrosion resistance, ductility and strength at low temperatures. It is widely used in the chemical industry, marine and aerospace engineering and medical technology.

Main characteristics of Titanium Grade 2 (3.7035):

- Excellent corrosion resistance to many media
- High ductility and toughness
- Good weldability and machinability
- Low density and high strength

Chemical composition of Ti Gr 2 (3.7035)

Element	N % max.	C (%) max.	H (%) max.	Fe (%) max.	O (%) max.
	0.03	0.08	0.015	0.30	0.25

Mechanical properties at room temperature

Tensile strength (depending on shape and size): 345 – 483 MPa (N/mm²)

Yield strength (depending on shape and size): 275 – 450 MPa (N/mm²)

Elongation: min. 20%

Elastizitätsmodul (GPa): approx. 105 at room temperature

Heat treatment and processing of titanium grade 2 (3.7035)

- Soft annealing: at 650 to 785 °C to improve machinability and reduce internal stresses.
- Welding: Titanium Grade 2 is readily weldable, although a shielding gas atmosphere or vacuum is required to protect against atmospheric contamination.
- Cold forming: is possible due to the good ductility of the material, although soft annealing is recommended after severe cold forming to restore properties.

Please note that the exact specifications and processing parameters may vary depending on the manufacturer and application. We recommend contacting the material manufacturer or a qualified engineer directly for the most accurate and up-to-date information.