

# TITANIUM CP GRADE 2



## Commercially Pure (CP) Titanium - Grade 2 UNS R56400 / WNR 3.7124

Titanium Grade 2, also known as Ti-CP (Commercially Pure Titanium Grade 2), is an unalloyed titanium grade that is widely recognized for its excellent corrosion resistance, formability, and moderate strength.

It is part of the commercially pure titanium grades, which are classified based on their composition and mechanical properties. Titanium Grade 2 is the most used among the commercially pure grades due to its versatile properties and wide range of applications.

Titanium is a lightweight material with a density about half that of steel, which makes Titanium Grade 2 an attractive choice for applications where weight reduction is important.

Titanium Grade 2 has excellent biocompatibility, making it suitable for medical applications like implants and surgical instruments.

### AVAILABLE TUBE PRODUCT FORMS

STRAIGHT

SEAMLESS

### TYPICAL MANUFACTURING SPECIFICATIONS

AMS 4902

ASTM B338

Also individual customer specifications.

### TYPICAL APPLICATIONS

MEDICAL IMPLANTS, INCLUDING ORTHOPEDIC IMPLANTS

AIRCRAFT FRAMES, ENGINE PARTS, AND  
LANDING GEAR COMPONENTS

SATELLITE PROPULSION SYSTEMS

HEAT EXCHANGERS

### INDUSTRIES PREDOMINANTLY USING THIS GRADE

CHEMICAL PROCESSING

MEDICAL

AEROSPACE

SPACE AND SATELLITES



## Technical Data

### MECHANICAL PROPERTIES

Property	Annealed Temper
0.2% Yield (Rp = 0.2)	40 ksi (275 MPa) minimum
Tensile (Rm)	50 ksi (345 MPa) minimum
Elongation (2"gl)	20% minimum
Hardness	200 HV maximum

### PHYSICAL PROPERTIES (Room Temperature)

Specific Heat (0-100°C)	523	J/kg/°K
Thermal Conductivity	16.4	W/m/°K
Thermal Expansion	8.6	µm/µm/°C
Modulus Elasticity	105	GPa
Electrical Resistivity	12.6	Ohm-cm
Density	4.51	g/cm <sup>3</sup>

### CHEMICAL COMPOSITION

(% by weight)

Element	Min	Max
C	-	0.08
O	-	0.25
N	-	0.03
H	-	0.015
Fe	-	0.30
Ti	Balance	