

Titanium Grade 2

DESCRIPTION

TITANIUM GRADE 2, also known as UNS R50400 or DIN 3.7035, is a commercially pure titanium with excellent corrosion resistance and good strength. It is specified under ASTM B265 and AMS 4902.

APPLICATIONS

Utilized for aircraft components, including structural parts and fasteners, due to its good strength-to-weight ratio and resistance to corrosion.

TYPICAL PHYSICAL PROPERTIES

	T(°F)	T(°C)	V	V (SI)
Density	-	-	0.1630 lb/in ³	4.512 g/cm ³
Beta Transus	1650- 1700	899- 927	-	-
Specific Heat	73	23	0.1250 Btu/°F	-
Electrical Resistivity	104	40	294.8 μΩ-in	7.5 μΩ-m
	210	99	367.0 ohm- cir-mil/ft	61 μΩ-m
	606	319	601.7 ohm- cir-mil/ft	1.0 μΩ-m
Modulus of Elasticity	-	-	15.0 x 10 ³ ksi	10.3 x 104 MPa
Magnetic Attraction	-	-	none	

TYPICAL MECHANICAL PROPERTIES

	Min	Typical
UTS, MPa	345	483
0.2% PS, MPa	276	352
Elongation on 2 in., %	20	28
Reduction of Area, %	35	-
Elastic Modulus, GPa	-	103
Hardness, HV	-	160
Charpy, V Notch Impact, J	41	-

Chemical Composition (% by weight)

Elements	Min	Max
C	-	0.1
Fe	-	0.3
O	-	0.25
N	-	0.03
H (sheet)	-	0.015
H (bar)	-	0.0125
Ti	Balance	
Other	-	0.4

Fabrication

- Weldability – excellent
- Specified bend radius for <0.070 in. x thickness – 2.0
- Specified bend radius for >0.070 in. x thickness – 2.5
- Welded bend radius x thickness – 3.0 (min.)

SPECIFICATIONS

- UNS R50400
- BS TA 2 to 5
- AMS 4902
- AIR 9182 T-40

Special Purpose Alloys & Metals From Stock

Controlled Expansion | Glass Sealing

Kovar ASTM F 15 Alloy

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

Alloy 32/42/48/49

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

VIM VAR CORE IRON

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

SUPRA 510 (Ni50FeCr10)

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

TITANIUM ALLOYS

TITANIUM TI-6AL-4V GRADE 5

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

TITANIUM GRADE 2

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

TITANIUM 6-2-4-6

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

TITANIUM BT20

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

PH ALLOYS

17-7PH

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

15-5PH

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

17-4PH

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

ALUMINIUM HARD ALLOYS

7475 AA7475/7449 AA7449

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

7075 UNS A97075

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

7050 AMS 4050

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

7175 UNS A97075

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2014 AMS 4121

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2024 UNS A92024

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2618 UNS A92618

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2017 AMS 4037

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2011 UNS A92011

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

NICKEL BASED ALLOYS

WASPALLOY

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL X750

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 945

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 945X

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

NIMONIC C263

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

NIMONIC 75

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 909

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 718

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 660

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

HIGH TEMP ALLOYS

HAYNES 188

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

L605

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

MP35N

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

MP159

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

RENE41

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

HAYNES 230

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

ELGILOY

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

HAYNES 242

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

JUST-IN-TIME DELIVERY: All of our standard stock items can be delivery as per commitment. All materials are certified with shipment. For special orders and non-stock materials, contact our sales team for our competitive pricing and delivery.