

Titanium

Typical Applications

Components/equipment for architecture, medical engineering, automotive, chemical plant, pharmaceutical, brewing, food, oil & gas, pulp & paper and marine industries.

Product Description

CP (Commercially Pure) Grade 2 is the most frequently employed unalloyed titanium grade. It provides moderate strength (typical yield strength 352 MPa) combined with good ductility and formability and excellent weldability. Grade 2 titanium has a density of 4.51 g/cc - less than 60% that of steel.

Corrosion Resistance

This material offers high corrosion resistance in oxidising, neutral and mildly reducing media, including chlorides.

Material Specifications

- UNS R50400
- ASTM B348 Grade 2
- BS TA 2 to 5
- AMS 4902
- AIR 9182 T-40
- ASTM 265 Grade 2

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.)

Availability

Bar, wire, strip, sheet, plate, foil, extrusions, forgings, seamless and welded pipe/tube.

Chemical Composition (weight %)

Weight (%)	C	Fe	N ₂	O	H (sheet)	H (bar)	Ti
Min							
Max	0.1	0.3	0.03	0.25	0.015	0.0125	Balance

Mechanical Properties

	Minimum	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
Charpy, V notch impact, J	41	-
Hardness, HV	-	160

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

UK Service Centres:

Smiths Belfast **02895 908 897**
 Smiths Biggleswade **01767 604 704**
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Quality & Testing:



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