

TITANIUM GR.1

TITANIUM ALLOY

CORROSION RESISTING ALLOYS WITH LOW DENSITY

Titanium Alloy Grade 1 is "unalloyed" titanium offering optimum ductility and cold formability. The material has high impact toughness and is readily weldable. The material is capable of deep drawing, and used for plate, frame, and tube heat exchangers, and also is used as plate for explosive bonding for clad plate. The material is castable and is sometimes utilized "as cast" in dental applications. The alloy is available as castings, wire, welded tube, bar, plate, sheet, forgings, and billet.

Chemical Properties

| C | Fe | O | H | N | Ti |
|---------|---------|----------|-----------|----------|---------|
| 0.1 Max | 0.2 Max | 0.18 Max | 0.015 Max | 0.03 max | Balance |

Minimum Mechanical Propertie:

| Yeild strength | Tensile strength | Elongation | Reduction |
|----------------|------------------|------------|-----------|
| Min 0.2% Mpa | Min Mpa | Min % | Min % |
| 170 | 240 | 24 | 30 |

Typical Mechanical Properties

| Yeild strength | Tensile strength | Elongation | Reduction |
|----------------|------------------|------------|-----------|
| Min 0.2% Mpa | Min Mpa | Min % | Min % |
| 221 | 345 | 37 | -- |

Specification:

ASTM B265 (Grade 1) Strip, Sheet, and Plate
 ASTM B338 (Grade 1) Seamless Welded Tubes
 ASTM B348 (Grade 1) Bar and Billet
 ASTM B363 (Grade 1) Fittings
 ASTM B367 (Grade 1) Castings
 ASTM B381 (Grade 1) Forgings
 ASTM B861 (Grade 1) Seamless Pipe
 ASTM B862 (Grade 1) Welded Pipe
 ASTM F67 (Grade 1) Unalloyed Titanium for Surgical Implants Weld Wire
 AWS A5.16 (ERTi-1) Weld Wire
 ISO 5832-2 (Grade 1) Unalloyed Titanium for Surgical Implants

Product Form:

Equivalent Designation

UNS R50350
 Din Ti 1
 W.Nr. 3.7025
 BS 2TA1
 BTI-0
 Italian(UNI 10221) Ti1 - Type 1
 Aerospace German WL 3.7024

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