

This page is mainly introduced the **99.0 Ti Ti Alloy Datasheet**, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of **99.0 Ti Ti Alloy**, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Ti Alloy 99.0 Ti Ti Alloy

99.0 Ti Ti Alloy Standard Number:

ITEM	Standard Number	Descriptions
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99.0 Ti Ti Alloy Chemical composition (mass fraction) (wt.%)

Chemical			Min.(%)				Max.(%)			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta	
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other	

<b>Category</b>	Titanium Alloy
<b>Class</b>	Wrought
<b>Type</b>	Commercially Pure
<b>Designations</b>	<b>United States:</b> ASTM B265 Grade4, ASTM B348 Grade4, ASTM B381 Grade4, MIL-T-9046, MIL-T-9047, AMS 4921, AMS 4901
<b>Composition</b>	
<b>Element</b>	<b>Weight %</b>

Ti	99.0
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<b>Mechanical Properties</b>			
<b>Properties</b>		<b>Conditions</b>	
		<b>T (°C)</b>	<b>Treatment</b>
<b>Density</b> (×1000 kg/m <sup>3</sup> )	4.51	25	
<b>Poisson's Ratio</b>	0.34	25	
<b>Elastic Modulus</b> (GPa)	104.1	25	
<b>Tensile Strength</b> (Mpa)	310	315 more	annealed
<b>Yield Strength</b> (Mpa)	172		
<b>Elongation</b> (%)	25		
<b>Reduction in Area</b> (%)	70		
<b>Hardness</b> (HB)	265	25	annealed
<b>Impact Strength</b> (J) (Charpy)	20	25	annealed

<b>Thermal Properties</b>			
<b>Properties</b>		<b>Conditions</b>	
		<b>T (°C)</b>	<b>Treatment</b>

<b>Thermal Expansion</b> (10 <sup>-6</sup> /°C)	8.6	20-100 more	
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99.0 Ti Ti Alloy Physical Properties		
Tensile strength	115-234	σ <sub>b</sub> /MPa
Yield Strength	23	σ <sub>0.2</sub> ≥/MPa
Elongation	65	δ <sub>5</sub> ≥ (%)
ψ	-	ψ ≥ (%)
Akv	-	Akv ≥/J
HBS	123-321	-
HRC	30	-

99.0 Ti Ti Alloy Mechanical Properties		
Tensile strength	231-231	σ <sub>b</sub> /MPa
Yield Strength	154	σ <sub>0.2</sub> ≥/MPa
Elongation	56	δ <sub>5</sub> ≥ (%)
ψ	-	ψ ≥ (%)
Akv	-	Akv ≥/J
HBS	235-268	-
HRC	30	-

## 99.0 Ti Ti Alloy Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

99.0 Ti Ti Alloy Range of products				
Product type	Products	Dimension	Processes	Deliver Status
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,
Coil / Strip	Steel Coil /Steel Strip	0.03-16.0x1200mm	Cold-Rolled & Hot-Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-WASHED

**We can produce Ti Alloy the specifications follows:**