

This page is mainly introduced the **99.2 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 **99.2 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 99.2 Ti Ti Alloy

99.2 Ti Ti Alloy Standard Number:

ITEM	Standard Number	Descriptions
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99.2 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 Grade2, ASTM B348 Grade2, ASTM B381 Grade2, MIL-T-9046, AMS 4942, AMS 4902, AMS 4941, AMS 4951
<b>Composition</b>	
<b>Element</b>	<b>Weight %</b>

Ti	99.2
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Mechanical Properties			
Properties		Conditions	
		T (°C)	Treatment
Density (×1000 kg/m <sup>3</sup> )	4.51	25	
Poisson's Ratio	0.34	25	
Elastic Modulus (GPa)	102.7	25	
Tensile Strength (Mpa)	193	315 more	annealed
Yield Strength (Mpa)	117		
Elongation (%)	35		
Reduction in Area (%)	75		
Hardness (HB)	200	25	annealed
Impact Strength (J) (Charpy)	43	25	annealed

Thermal Properties			
Properties		Conditions	
		T (°C)	Treatment

<b>Thermal Expansion</b> ( $10^{-6}/^{\circ}\text{C}$ )	8.6	20-100 more	
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### 99.2 Ti Ti Alloy Physical Properties

Tensile strength	115-234	$\sigma_b/\text{MPa}$
Yield Strength	23	$\sigma_{0.2} \geq/\text{MPa}$
Elongation	65	$\delta_5 \geq (\%)$
$\psi$	-	$\psi \geq (\%)$
Akv	-	$Akv \geq/J$
HBS	123-321	-
HRC	30	-

### 99.2 Ti Ti Alloy Mechanical Properties

Tensile strength	231-231	$\sigma_b/\text{MPa}$
Yield Strength	154	$\sigma_{0.2} \geq/\text{MPa}$
Elongation	56	$\delta_5 \geq (\%)$
$\psi$	-	$\psi \geq (\%)$
Akv	-	$Akv \geq/J$
HBS	235-268	-
HRC	30	-

### 99.2 Ti Ti Alloy Heat Treatment Regime

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

99.2 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:**