

This page is mainly introduced the **Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si Ti Alloy Datasheet**, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of **Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si 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 Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si Ti Alloy

Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si Ti Alloy Standard Number:

ITEM	Standard Number	Descriptions
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Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si 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

Category	Titanium Alloy
Class	Wrought
Type	Near alpha alloy
Designations	United States: MIL-T-9047, AMS 4974
Composition	
Element	Weight %

Al	2.25
Sn	11
Zr	5
Mo	1
Si	0.2

Mechanical Properties			
Properties		Conditions	
		T (°C)	Treatment
Density ($\times 1000$ kg/m ³)	4.82	25	
Poisson's Ratio	0.33	25	
Elastic Modulus (GPa)	113.8	25	
Tensile Strength (Mpa)	758	540 more	duplex annealed
Yield Strength (Mpa)	586		
Elongation (%)	24		
Reduction in Area (%)	50		
Hardness (HRC)	36	25	duplex annealed

Thermal Properties

Properties		Conditions	
		T (°C)	Treatment
Thermal Expansion (10 ⁻⁶ /°C)	8.5	20-100 more	

Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si Ti Alloy Physical Properties		
Tensile strength	115-234	σb/MPa
Yield Strength	23	σ 0.2 ≥/MPa
Elongation	65	δ5 ≥ (%)
ψ	-	ψ ≥ (%)
Akv	-	Akv ≥/J
HBS	123-321	-
HRC	30	-

Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si Ti Alloy Mechanical Properties		
Tensile strength	231-231	σb/MPa
Yield Strength	154	σ 0.2 ≥/MPa
Elongation	56	δ5 ≥ (%)
ψ	-	ψ ≥ (%)
Akv	-	Akv ≥/J
HBS	235-268	-
HRC	30	-

Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si Ti Alloy Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

Ti-2.25-Al-11Sn-5Zr-1Mo-0.2Si 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: