

6AL-6V-2SN Titanium

Alternate names: 662 Titanium

Description:

6AL-6V-2SN is an alloyed Grade of alpha-beta Titanium. 6AL-6V-2SN is similar to 6AL-4V in many ways, but exhibits higher strength properties due to additional Vanadium, Iron, and Copper. 6AL-6V-2SN exhibits extra high strength, and light weight. It is often used in aerospace, and oil & gas applications.

Condition:

6AL-6V-2SN is often found in the Annealed condition, or heat treated to the higher strength Solution Treated & Aged condition.

Weldability:

Welding is not typically recommended.

Machinability:

Low cutting speeds, heavy feed rates, sharp tools, and ample cutting fluid are prescribed.

Common Specs:

MIL-T-9047 (6AL-6V-2SN)	AMS 6936	AMS 4918
AMS-T-9047 (6AL-6V-2SN)	AMS 6935	AMS 4978
MIL-T-9046 (AB-3 6AL-6V-2SN)	AMS-T-9046 (AB-3 6AL-6V-2SN)	
AMS 4979	AMS 4971	

***The use of this information is strictly voluntary and should be used as a guideline only. This data contains generalizations and is in no way a substitute for your own research. This information is not intended as a warranty or fitness of any application. Should you require further information about Titanium 6AL-6V-2SN, please contact us and we will gladly refer you to additional sources*



8400 Miramar Road, Suite 200-248C, San Diego, CA 92126
Phone: 888.772.8984 Fax: 858.530.0358

Sales@performancetitanium.com

PTG 6AL-6V-2SN Data Sheet, created 9/20/18

Mechanical and Chemistry info for 6AL-6V-2SN **Based on specs AMS 6936 & AMS 4918

Typical Composition Analysis

	<u>AMS 6936 (Bars, Forgings)</u>	<u>AMS 4918 (Sheet, Plate)</u>
Aluminum	5-6%	5-6%
Vanadium	5-6%	5-6%
Tin	1.5-2.5%	1.5-2.5%
Iron	0.35-1.0%	0.35-1.0%
Copper	0.35-1.0%	0.35-1.0%
Oxygen (Maximum)	0.20%	0.20%
Carbon (Maximum)	0.05%	0.05%
Nitrogen (Maximum)	0.04%	0.04%
Hydrogen (Maximum)	0.015%	0.015%
Yttrium (Maximum)	0.005%	0.005%
Other Elements (Total)	0.30%	0.40%
Titanium	Balance	Balance

Typical Tensile Properties (Minimums)*

	<u>AMS 6936</u>	<u>AMS 4918</u>
Tensile	137-148 ksi	145-155 ksi
Yield	129-137 ksi	135-170 ksi
Elongation	8-10%	6-10%
Reduction of Area	15-20%	-----

**Tensile property requirements vary based on orientation, section thickness/diameter, and cognizant engineering organization requirements.*

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To purchase AMS specs see: <http://standards.sae.org>

Please call 888.772.8984 or email sales@performancetitanium.com for a quote on 6AL-6V-2SN Titanium.

Data compiled from ATI "6-6-2 Technical Data Sheet", and SAE specification & data sheets, as well as "Materials Properties Handbook: Titanium Alloys" by Gerhard Welsch, Rodney Boyer, & E. W. Collings.



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