

Ti 6-2-4-2

A titanium-aluminium-tin-zirconium-molybdenum alloy, Titanium 6-2-4-2 is primarily used for applications requiring high strength and toughness.

Excellent resistance to fatigue and crack propagation, Ti 6-2-4-2 has outstanding resistance to corrosion in a wide range of media.

PRODUCT FORMS

PRODUCT FORM	SIZE RANGE FROM	SIZE RANGE TO
Ti 6-2-4-2 round bar	6.35 mm	500 mm
Ti 6-2-4-2 sheet & plate	0.508 mm	101.6 mm
Ti 6-2-4-2 welding wire	0.76 mm	1.52 mm

Can't find the size you need? **Please contact us at onlinesales@neonickel.com**

CHEMICAL ANALYSIS

%	AL	SN	ZR	MO	C	N	H	O	SI	FE	Y	OTHERS, EACH	OTHERS, TOTAL	TI
Min	5.5	1.8	3.6	1.8	-	-	-	-	0.06	-	-	-	-	-
Max	6.5	2.2	4.4	2.2	0.05	0.05	0.015	0.12	0.1	0.25	0.005	0.1	0.3	Balance

APPLICATIONS

- Compressor discs and blades
- Airframe structure and skin
- Engine afterburner components
- Hush kits
- Motorsport components

ABOUT TI 6-2-4-2

A near-alpha alloy, primarily used due to its high strength and toughness, Ti 6-2-4-2 has good creep resistance up to 550°C. The forging and machining characteristics of Ti 6-2-4-2 are similar to those of Ti 6Al-4V. The weldability of Ti 6-2-4-2 is fair, using AMS 4952 weld wire. Several different treatments are available. **Sheet & Strip under 0.1875" thickness:** Duplex anneal: 899°C, 30 minutes, air cool, followed by 787°C 15 minutes, air cool. **Triplex anneal:** 899°C 30 minutes, air cool, followed by 787°C 15 minutes air cool, 593°C 2 hours air cool. **Plate 0.1875 inch thickness and over:** Duplex anneal: 343°C 60 minutes, air cool, followed by 593°C 8 hours air cool. Triplex anneal: 899°C 30 minutes, air cool, followed by 787°C, 15 minutes air cool, 593°C 2 hours air cool. **Bar and Forgings:** Duplex anneal: Solution anneal 25 - 50°C below. Beta transus 1 hour, air cool or faster, 593°C 8 hours air cool. For more information on Ti 6-2-4-2 [Contact us](#) today, or fill in our [online quote form!](#)

PROPERTIES

Density:	4.429 g/cm ³
Modulus of Elasticity /x10⁵ MPa:	1.14
Thermal Conductivity /kcal/(hr.m.°C):	5.952
Beta Transus:	996°C

MINIMUM TENSILE PROPERTIES, AMS 4919, DUPLEX ANNEALED

THICKNESS, IN	0.025 ≤ 0.062	> 0.062 ≤ 1.000	> 1.000 ≤ 3.000
Tensile Strength, ksi	135,000	135,000	135,000
0.2% offset Yield Strength, ksi	125,000	125,000	125,000
Elongation, %	8	10	10

BEND FACTORS, DUPLEX ANNEALED, AMS 4919

NOMINAL THICKNESS, IN	≤ 0.070	> 0.070 < 0.1875
Factor, 105° Bend	9	10

SPECIFICATIONS

UNS Number: UNS R56400

Werkstoff Number: 3.7164, 3.7165

Standards: ASTM B265, 348, 381,363, MSRR8610, 8614. 8652, AMS 4911, 4920, 4928, 4934, 4935, 4965, 4967, 6930, 6931,6931B, B337,B338