



ASM Aerospace Specification Metals Inc.



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Titanium Ti-15V-3Cr-3Al-3Sn Solution Treated

Subcategory: Beta Titanium Alloy; Metal; Nonferrous Metal; Titanium Alloy

Key Words: Titanium Ti-15-3

Component Wt. %

Al	3
Cr	3
Sn	3
Ti	76
V	15

Physical Properties	Metric	English	Comments
Density	<u>4.76 g/cc</u>	0.172 lb/in ³	

Mechanical Properties

Hardness, Rockwell B	95	95	
Tensile Strength, Ultimate	<u>790 MPa</u>	115000 psi	
Tensile Strength, Yield	<u>770 MPa</u>	112000 psi	
Elongation at Break	<u>22 %</u>	22 %	
Modulus of Elasticity	<u>82 GPa</u>	11900 ksi	
Poisson's Ratio	0.33	0.33	Typical for beta titanium alloy.
Shear Modulus	<u>30.8 GPa</u>	4470 ksi	Calculated from typical values.

Electrical Properties

Electrical Resistivity	<u>0.00014 ohm-cm</u>	0.00014 ohm-cm	
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Thermal Properties

CTE, linear 20°C	<u>8.5 μm/m-°C</u>	4.72 μin/in-°F	20-95°C
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CTE, linear 250°C	9.1 μm/m-°C	5.06 μin/in-°F	
CTE, linear 500°C	9.8 μm/m-°C	5.44 μin/in-°F	
Specific Heat Capacity	0.5 J/g-°C	0.12 BTU/lb-°F	at 20°C. Value at 400°C is 0.649 J/g-°C
Thermal Conductivity	8.08 W/m-K	56.1 BTU-in/hr-ft ² -°F	
Beta Transus	760 °C	1400 °F	

References for this datasheet.

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error.