Titanium Ti-8Al-1Mo-1V (Ti-8-1-1), ST 980°C (1800°F), Aged 595°C

Subcategory: Alpha/Near Alpha Titanium Alloy; Metal; Nonferrous Metal; Titanium Alloy

Key Words: Ti8Al1Mo1V; UNS R54810; Ti-811

Component	Wt. %
Al	8
Mo	1
Ti	90
V	1

Material Notes:

Information provided by Allvac and the references.

Applications: Fan & compressor blades, discs, spacers, seals, rings. Excellent creep resistance.

Physical Properties	Metric	English	Comments
Density	4.37 g/cc	0.158 lb/in³	
Mechanical Properties			
Tensile Strength, Ultimate	1180 MPa	171000 psi	
Tensile Strength, Yield	1070 MPa	155000 psi	
Elongation at Break	17 %	17 %	
Reduction of Area	26 %	26 %	
Modulus of Elasticity	120 GPa	17400 ksi	unspecified heat treatment
Poisson's Ratio	0.32	0.32	duplex annealed
Shear Modulus	46 GPa	6670 ksi	
Electrical Properties			
Electrical Resistivity	0.000197 ohm-cm	0.000197 ohm-cm	

Thermal Properties

CTE, linear 20°C	8.5 µm/m-°C	4.72 µin/in-°F	
CTE, linear 250°C	9.2 µm/m-°C	5.11 µin/in-°F	
CTE, linear 500°C	10.1 µm/m-°C	5.61 µin/in-°F	
Specific Heat Capacity	0.502 J/g-°C	0.12 BTU/lb-°F	
Thermal Conductivity	6 W/m-K	41.6 BTU-in/hr-ft²-°F	
Melting Point	Max 1540 °C	Max 2800 °F	Liquidus
Liquidus	1540 °C	2800 °F	
Beta Transus	1040 °C	1900 °F	

References for this datasheet.