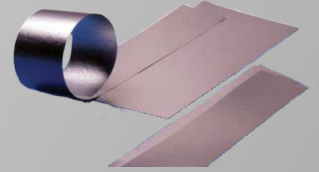


CERAMATERIALS



"Your One Stop Shop for Thermal Processing"

TZM Molybdenum

TZM Molybdenum is an alloy of 0.50% Titanium, 0.08% Zirconium and 0.02% Carbon with the balance Molybdenum. TZM Molybdenum is manufactured by either P/M or Arc Cast technologies and is of great utility due to its high strength/high temperature applications, especially above 2000°F.

TZM Molybdenum Physical Properties

Property	Unit	
Density	lb/in ³ (gm/cm ³)	0.37 (10.22)
Melting Point	°F (°C)	4753 (2623)
Thermal Conductivity	Cal/cm ² /cm ² C/sec	0.48
Specific Heat	Cal/gm/°C	0.073
Coefficient of L Thermal Expansion	micro-in/°Fx10 ⁶ (micro-in/°Cx10 ⁶)	2.50 (5.20)
Electrical Resistivity	micro-ohm-cm	6.85

TZM Molybdenum Mechanical Properties

Tensile Strength	KSI (Mpa)-RT KSI (Mpa)-500°C KSI (Mpa)-1000°C	110 (760) -- --
Elongation	% in 1.0"	15
Hardness	DPH	220
Modules of Elasticity	KSI Gpa	46000 320

TZM Molybdenum Specifications:

ASTM B386 type 364 / B387 type 364

AMS 7817