

For high temperature, vacuum applications, Molybdenum fasteners provide strength and mechanical stability. Molybdenum has a low coefficient of thermal expansion and can withstand extremely high heat without changing shape, expanding or softening. Exposing molybdenum bolts to oxygen over 600°C will cause them to readily oxidize. Therefore, they are primarily used in vacuum applications. (In addition to pure molybdenum, we also offer alloyed molybdenum TZM for extreme high strength.

Properties

Ultimate Tensile Strength	94 ksi Molybdenum 158 ksi TZM
Yield Strength at 0.2%	90 ksi Molybdenum 130 ksi TZM
Elongation %	N/A
Usable Temperature Limit	2912°F / 1600°C Vacuum 1112°F / 600°C Air

Key Benefits

- Excellent high temperature stability and mechanical properties
- Primarily used in vacuum and inert gas (oxygen free) environments
- Will readily oxidize in air/oxygen greater than 600°C.
- Alloyed Molybdenum TZM offers extreme high strength for hot vacuum environments

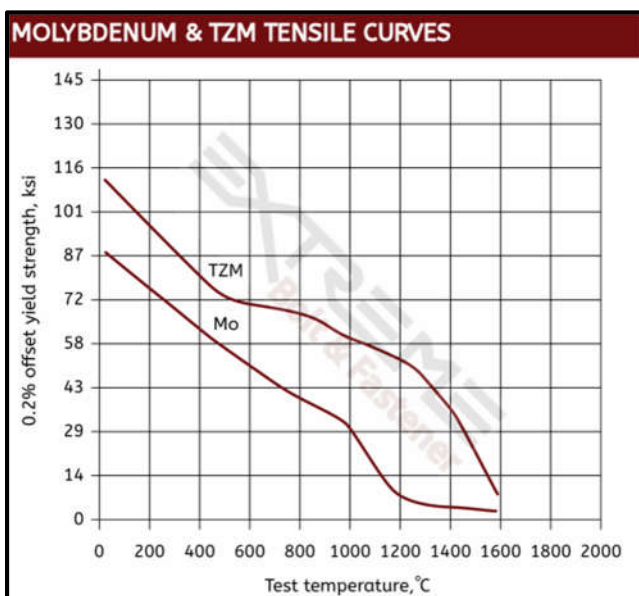
Chemistry & Specifications

Molybdenum (CP)	Mo
Typical %	>99.95

Moly TZM Alloy	Mo	Ti	Zr
Typical %	Bal	0.5	0.08

SPECIFICATIONS: ASTM B386, ASTM B387, Type 361

Material Data



Our Engineers Are Here to Help

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