Molybdenum Alloy P/M-TZM
Powder Metallurgy Plate 2703

Description of Product This specification covers rolled molybdenum alloy (Molybdenum + 0.5 % titanium + 0.1 % zirconium)

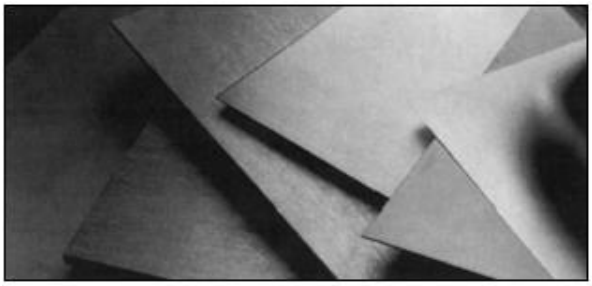
Chemical Characteristics[1)]
(Mass fraction in % [cg/g]; ppm [µg/g])

The chemical composition of the molybdenum powder used in producing sheet bar shall conform to the following limits:

Mo	(By Difference)	min.	99.2		%
N	(Sintered Material)	max.	0.002		%
O	(Sintered Material)	max.	0.040		%
		typical	0.025		%
Si		max.	0.005		%
Ni		max.	0.005		%
Fe		max.	0.010		%
C		0.010	-	0.040	%
Zr		0.06	-	0.12	%
Ti		0.40	-	0.55	%

Structure Plate will be supplied in the stress-relieved condition unless otherwise requested.

Mechanical Properties Tensile properties can be supplied on request when Purchase Order is placed.



P/M - TZM

1) Information on testing methods on request.

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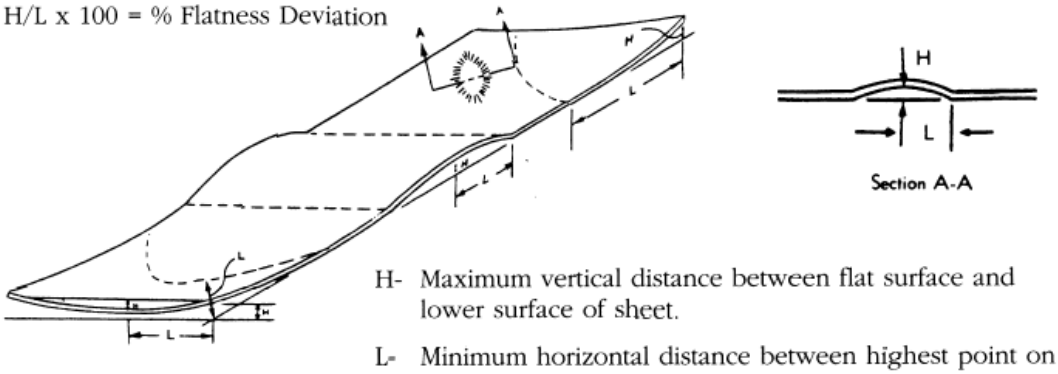
Physical Characteristics

Thickness Thickness (Inches)	Thickness Tolerance (% of Thickness)	Width Tolerance (Inches)	Length Tolerance (Inches)	Flatness Deviation (% Maximum)
.1875 to .500	± 4	+.125 -0	+.125 -0	3
Over .500 to 1.000	± 5	+.125 -0	+.125 -0	5
Over 1.000 to 1.500	± 5	+.1875 -0	+.1875 -0	6

Plate will be sheared, abrasive cut, band saw cut, or water jet cut to the tolerances shown.

The deviation from flatness is determined by the formula:

H/L x 100 = % Flatness Deviation



H- Maximum vertical distance between flat surface and lower surface of sheet.

L- Minimum horizontal distance between highest point on sheet and point contact with flat surface.

Surface Condition The plate will be supplied with a matte finish. It will be of uniform quality, clean and free from foreign matter. Major surface defects will be removed by grinding provided that such conditioning does not reduce dimensions below specified limits.

Hazards identification in Advertising (Directive 67/548/EEC Article 26, Directive 1999/45/EC Article 13 and REGULATION (EC) No 1272/2008 Article 48)
none.

Identification The material will be identified with appropriate specification number, ingot or lot number, and nominal size. Shipping containers will be marked with the name of the customer and the purchase order number.

Rejection H.C. Starck must receive written notification of rejected material with the resaon for rejection. The right is reserved to inspect rejected material at customer plant for claim validation. The material may be returned only after proper authorization.

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