

## MOLYBDENUM POWDER METALLURGY PRODUCTS

# MOLYBDENUM ALLOY ODS

## Mo-La Powder Metallurgy Plate 2603

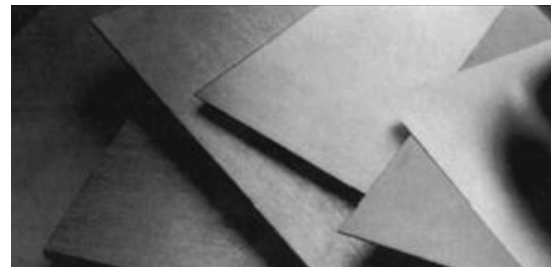
This specification covers rolled, oxide-dispersion strengthened (ODS) molybdenum alloy (molybdenum + 2 vol% La<sub>2</sub>O<sub>3</sub>) sheet produced from pressed and sintered powder metallurgy sheet bar.

### CHEMICAL CHARACTERISTICS<sup>1</sup>

(Mass fraction in % [cg/g]; ppm [ $\mu$ g/g])

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

Mo (By Difference)	min.	98.7 %
O		0.250 %
Mg	max.	0.001 %
Mn	max.	0.001 %
Ni	max.	0.005 %
Al	max.	0.002 %
Cu	max.	0.002 %
Pb	max.	0.002 %
Ti	max.	0.002 %
Ca	max.	0.003 %
Si	max.	0.005 %
Sn	max.	0.003 %
Cr	max.	0.010%
C	max.	0.005 %
Fe	max.	0.010 %
La (Lanthanum)	level 1: 0.2 - 0.4% level 2: 0.5 - 0.7%; level 3: 1.0 - 1.2%	



ODS MO-LA

### STRUCTURE

Sheet will be supplied in a stress-relieved condition unless otherwise requested.

### MECHANICAL PROPERTIES

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

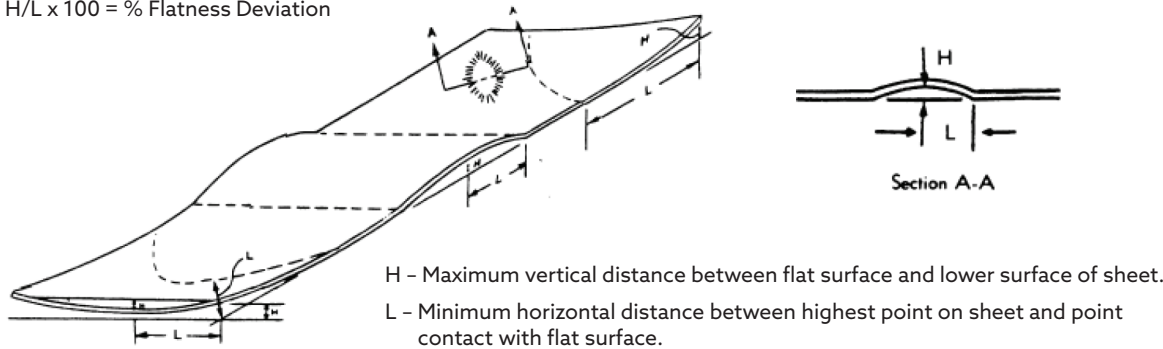
<sup>1</sup> Information on testing methods on request.

## PHYSICAL CHARACTERISTICS

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 total deviation from flatness is determined by the following formula:

$$H/L \times 100 = \% \text{ Flatness Deviation}$$



## SURFACE CONDITION

Sheet is supplied with a matte or bright finish to 0.030 inch thickness. A matte finish will be supplied for sheet over 0.030 inch thick. The sheet will be of uniform quality, clean, and free from foreign matter. It will be essentially free from edge delaminations as determined by visual examination with exception of bedsheet width. Normal shear tears are not considered as delaminations.

**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

Elmet Technologies must receive written notification of rejected material with the reason 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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