



MOLYBDENUM POWDER METALLURGY PRODUCTS

PURE MOLYBDENUM PSB

Powder Metallurgy Billet

This specification covers pressed and sintered billet made from pure molybdenum powder.

CHEMICAL CHARACTERISTICS¹

(Mass fraction in % [cg/g]; ppm [μ g/g])

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

Mo (By Difference)	min.	99.95 %
Mg	max.	0.001 %
Mn	max.	0.001 %
Ni	max.	0.002 %
Al	max.	0.002 %
Cu	max.	0.002 %
Pb	max.	0.002 %
Ti	max.	0.002 %
Ca	max.	0.003 %
Si	max.	0.003 %
Sn	max.	0.003 %
Cr	max.	0.005 %
Fe	max.	0.005 %
C	max.	0.006 %



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PHYSICAL PROPERTIES

Density: The as-sintered billet density will be 94% (minimum).

¹ Information on testing methods on request.

MECHANICAL PROPERTIES

The hardness of as-sintered billet shall be 155 DPH (minimum).

Diameter		Tolerance	
Inches	mm	Inches	mm
Less than 4 inches	<101.6	± 1/8 inch	± 3.2
4 to 7"	101.6 - 177.8	± 3/16 inch	± 4.8
7 to 10"	177.8 - 254.0	± 1/4 inch	± 6.4

Length: Maximum variation in cut lengths will be -0 to +1/4 inches.

Straightness: Maximum variation from straightness will be 1/32" (0.31) in 6 inches.

IDENTIFICATION

Billet will be identified with an appropriate heat number.

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.

REPORTS

Shipments will be accompanied by documents indicating the specification number, the number of pieces, lot number, billet size and the net weight of each billet size. In addition, a product certification report that details pertinent chemical, mechanical, structural and physical integrity features will be provided.

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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