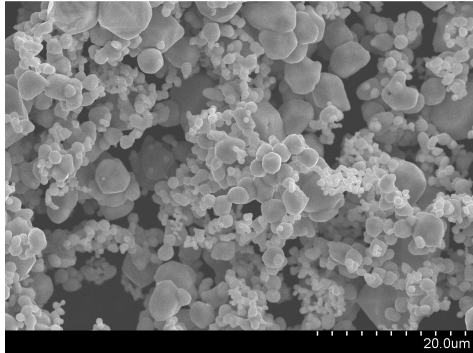


MOLYBDENUM METAL POWDER – NPA GRADE

DESCRIPTION



SEM Image – Molybdenum Metal Powder

Climax’s NPA grade molybdenum metal powder is produced using a proprietary reduction and blending process that yields a product having a narrow particle size range (Fisher Sub Sieve) and a spherical morphology.

Improved powder mixing, sintering characteristics, and higher green strength are achieved without the use of milling.

The resulting narrow particle range should reduce process variation when used in the direct fabrication of metal parts via conventional powder metallurgy consolidation practices, as well in the production of alloys via metal blending or mechanical alloys.

CHEMICAL PROPERTIES

NPA

Purity:

Molybdenum (Mo)* 99.95% min

Element

Maximum (ppm)

Oxygen (O)	1000
Nitrogen (N)	100
Carbon (C)	50
Tungsten (W)	250
Iron (Fe)	50
Nickel (Ni)	50
Chrome (Cr)	50
Silicon (Si)	50

*Purity determined by subtraction, excluding gases

PHYSICAL PROPERTIES

Fisher Sub Sieve: 4.0-4.8 µm

Bulk Density: 1.2-1.8 g/cc

Tap Density: 2.5-3.5 g/cc

Particle Size Distribution:

+100 mesh	≤ 0%
-100 / +200 mesh	≤ 5%
-250 mesh	≥ 95%

STANDARD PACKAGING

< 5kg	Plastic (PE) bottle	All NP molybdenum metal powders are packed in mylar lined containers.
~ 20kg	steel pail	
> 100kg	steel drum	

MSDS REQUIREMENTS

A copy of the material safety data sheet (MSDS) is available upon request.



QUALITY ASSURANCE

We are committed to the production of the highest quality Molybdenum products, to the continual improvement of our manufacturing processes, and long-term partnerships with our customers. To accomplish this, all our employees and suppliers work as a team, assuring strict conformance to this specification as well as customer requirements. A quality assurance system has been implemented. All conversion facilities are certified to ISO 9001:2008.

PDS NPA REV00