

PURE MOLYBDENUM GME GLASS MELTING ELECTRODES

Product Description

This specification covers Molybdenum Glass Melting Electrodes.

Chemical Characteristics¹⁾

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

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

Typical Chemical Composition

Material Molybdenum		Normal Quality (EL)
element	dimension	
Mo (balance)	%	min. 99.95
Mg	ppm	max. 10
Mn	ppm	max. 10
Ni	ppm	max. 20
Al	ppm	max. 20
Cu	ppm	max. 20
Pb	ppm	max. 20
Ti	ppm	max. 20
Ca	ppm	max. 30
Si	ppm	max. 30
Sn	ppm	max. 30
C	ppm	max. 50
Fe	ppm	max. 50
Cr	ppm	max. 50

Microstructure

The material can be offered in forged condition (deformation structure) as well as partially or completely recrystallized (depending on the annealing process). Finished products according to customer drawings or raw products as semi-finished products can be delivered.

Ultrasonic Test

All melted and forged molybdenum rods are inspected by ultrasonic test according to DIN EN 583.

Density

$\rho \geq 10.1 \text{ g/cm}^3$ (both sintered and forged)

Dimensions and Tolerances

The material of normal quality can be supplied in the following standard diameters:

32.0 mm (1 ¼")

50.8 mm (2")

63.5 mm (2.5")

76.2 mm (3")

101.6 mm (4")

127.0 mm (5")

152.4 mm (6")

Tolerances: +/- 0.5 mm in lengths up to 2.5 m. Other diameters are possible according to customer request, up to 200 mm are possible.

Straightness

Maximum deviation 1.5 mm / m.

Threads

Male or female threads can be delivered. Other design features on request.

Surface quality

Turned; to customer specification ground or blasted.

Identification

Each component is labelled with the batch number and/or consecutive identification number, depending on customer specifications.



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