

**MOLYBDENUM GLASS MELTING ELECTRODES**

# MOLYBDENUM ALLOY GME Mo-Zr ZrO<sub>2</sub>-Doped Glass Melting Electrodes

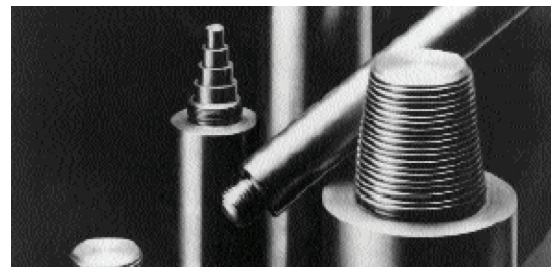
This specification covers ZrO<sub>2</sub>-Doped Molybdenum Glass Melting Electrodes (Mo-1.7 wt% ZrO<sub>2</sub>)

**CHEMICAL CHARACTERISTICS<sup>1</sup>**

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

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

<b>Mo</b> (By Difference)	<b>min.</b>	<b>98.00 %</b>
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 %
C	max.	0.005 %
Fe	max.	0.006 %
Cr	max.	0.005 %
Zr	1.2 -	1.4 %


**GME**

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

## STRUCTURE

Glass melting electrodes will normally be shipped as stress relieved. Material can be supplied in the re-crystallized condition upon request.

## DIMENSIONAL TOLERANCES

Diameter		Diameter Variation		Out-of-Round	
Inches	mm	Inches	mm	Inches	mm
1 1/4	31.7	+/- 0.015	± .38	0.015	0.38
1 1/2	38.1	+/- 0.015	± .38	0.020	0.51
2	50.8	+/- 0.030	± .76	0.025	0.63
2 1/2	63.5	+/- 0.030	± .76	0.025	0.63
3	76.2	+/- 0.040	± 1.0	0.035	0.89
4	101.6	+/- 0.040	± 1.0	0.050	1.27

## STRAIGHTNESS

Maximum variations from straightness will be 0.030 inch per foot. Maximum variation in cut lengths will be +1/4", -0 inch. Special tolerance on request.

## THREADING

U.S. standard and special threads are available on either or both ends.

## SURFACE CONDITION

Glass melting electrodes will be supplied with centerless ground or machined surfaces of 128 micro inch or better. Minor surface imperfections may be removed by conditioning while maintaining the dimensional tolerance.

## IDENTIFICATION

All molybdenum glass melting electrodes will be identified with an appropriate lot number. All shipments will be marked with the name of the customer and the purchase order number.

**Hazards identification in Advertising (REGULATION (EC) No 1272/2008 Article 48) None.**

## 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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