

WLa ROD PRODUCTS MATERIAL DATA SHEET

Elmet Technologies manufactures high quality W-La₂O₃ rods for use in furnace components, lamp electrodes, and other applications that require high strength and creep resistance at high temperatures, improved machinability, and/or a low electron work function.

DIMENSIONAL PROPERTIES

STANDARD PRODUCT SIZES

Diameter	0.125 – 0.625"	3 – 16 mm	>0.625 – 1.25"	>16 – 32 mm
Diameter tolerance Black/cleaned Ground	± 0.010" ± 0.002"	± 0.25 mm ± 0.05 mm	± 0.015" ± 0.005"	± 0.38 mm ± 0.13 mm
Length	0.5 – 92"	12.7 – 2350 mm	0.5 – 36"	12.7 – 910 mm
Length tolerance <12" (305 mm) 12-24" (305-610 mm) >24" (610 mm)	± 0.015" ± 0.015" ± 0.0625"	± 0.38 mm ± 0.38 mm ± 1.59 mm	± 0.015" ± 0.030" ± 0.0625"	± 0.38 mm ± 0.76 mm ± 1.59 mm
Straightness deviation	≤ 0.050"/ft	≤ 4.17 mm/m	≤ 0.050"/ft	≤ 4.17 mm/m

Other sizes, tolerances, and properties may be available as special order

CHEMICAL COMPOSITION

W	≥ 98.75 wt%	Fe	≤ 30 ppm
La ₂ O ₃	0.9-1.2 wt%	K	≤ 30 ppm
Al	≤ 25 ppm	Mo	≤ 50 ppm
C	≤ 50 ppm	Ni	≤ 30 ppm
Cu	≤ 10 ppm	Si	≤ 40 ppm

All other metallic elements are contained at ≤ 20 ppm

Other chemistries may be available as special order

All WLa products are compliant with EU RoHS Directive 2002/95/EC, 2011/65/EU and
with REACH Regulation (EC) No. 1907/2006

All raw materials for Elmet's WLa rod products are obtained from certified conflict-free sources