WIRBALIT® M100
Molybdenum

CAS number	7439-98-7
Chemical symbol	Mo
ASTM standards	ASTM B386 for foils, plates, strips and sheets ASTM B387 for bars and wires

Molybdenum is a high-strength and hard metal. It is comparable to tungsten that has however, a lower melting point of 2,620 °C. The stretch ability is better than tungsten and it is easier to manufacture thin wires and thin foils from it.

Molybdenum has the lowest coefficient of thermal expansion (CTE) of all pure metals. Its CTE fits well with semiconductor materials such as Si, GaN, GaAs, Al_2O_3.

		Mo
Hardness	HV30	≥230
Tensile strength	N/mm²	≥ 750
0,2-limit	N/mm²	≥ 650
Elongation	%	≥ 10
Modulus of elasticity	N/mm²	No
El. conductivity	Sm/mm²	> 15
El. conductivity	% IACS	≥ 30
Thermal conductivity at 20°C	W/Km	138
Refractory deformation temperature	°C	1200
Melting temperature	°C	2620
Coefficient of linear thermal expansion (20 °C - 300 °C)	10^{-6}/K	5,1
Density	g/cm³	10,2
Thermal expansion coefficient (20 °C - 2000 °C)		4,9 µm.m^{-1}.k^{-1}

Available forms:

Semi-finished products (bars, strips and plates), drawing parts (according to customer specifications), standard parts of high temperature technology (screws, nuts etc.)

Application areas:

Medical technology, lighting industry, sports equipment, aircraft industry- mainly as electrodes and high-temperature components.

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