

MoldMAX LH[®]

Materion Brush Performance Alloys' MoldMAX LH (Low Hard) is a premium copper mold alloy that provides hardness and strength comparable with standard AISI P-20 tool steel and a thermal conductivity five-times higher. MoldMAX LH is used for injection mold cores and cavities where moderate hardness and high toughness and conductivity are required.

CHEMICAL COMPOSITION (weight percent)

Alloy	Beryllium	Cobalt	Copper
MoldMAX LH	1.6 – 2.0	0.2 – 0.3	Balance

PHYSICAL PROPERTIES

Elastic Modulus	Melting Point (Solidus)	Density	Thermal Expansion	Thermal Conductivity (100 °C)	Heat Capacity (100 °C)
19,000 ksi 131 GPa	~1600 °F ~870 °C	.302 lb/in ³ 8.36 g/cm ³	9.7x10 ⁻⁶ in/in °F 17.5 x 10 ⁻⁶ °C ⁻¹	90 BTU/hr-ft.°F 155 W/m-K	.10 BTU/lb.°F 0.44 J/g-K

TYPICAL MECHANICAL PROPERTIES*

0.2% Offset Yield Strength	Ultimate Tensile Strength	Fatigue Strength 10 ⁷ Cycles (R=-1)	Elongation	Impact Strength	Hardness
110 ksi 760 MPa	140 ksi 965 MPa	>45 ksi >310 MPa	15%	15 ft-lb 20 J	30 HRC

*Properties may vary by shape and thickness.

FORMS AVAILABLE

Rounds, square and rectangular bars, and plate.

SAFE HANDLING OF COPPER BERYLLIUM

Handling copper beryllium in solid form poses no special health risk. Like many industrial materials, beryllium-containing materials may pose a health risk if recommended safe handling practices are not followed. Inhalation of airborne beryllium may cause a serious lung disorder in susceptible individuals. Occupational safety and health regulatory agencies worldwide have set mandatory limits on occupational respiratory exposures. Read and follow the guidance in the Material Safety Data Sheet (MSDS) before working with this material. The SDS and additional important beryllium health and safety information and guidance can be found at berylliumsafety.com, berylliumsafety.eu, and Materion.com.