

OVERVIEW

MEI-63L is the lead-free version of Yellow Brass certified to RoHS and drinking water standards (Pb ≤ 50 ppm). Identical mechanical and physical properties to MEI-63 while meeting stringent environmental regulations. Ideal for food-contact and potable water applications.

CHEMICAL COMPOSITION (wt. %)		ALLOY DESIGNATIONS		COIL / SHEET SPECIFICATIONS	
Element	Composition (%)	Standard	Designation	Specification	Range
Cu	62.00 – 64.00	IS	IS 410	Thickness (mm)	0.04 – 3.0
Fe	≤0.01	ASTM	C27200	Width (mm)	6.00 – 406
Pb	≤0.005 [50 ppm max]	BS 2870	CZ108	Inner Dia. (mm)	100/150/200/300/400/500
Ni	≤0.01	DIN 17660	2.0321	Coil Wt. (kg/mm)	1.0 – 4.0
Zn	Rem.	EN 1652	CW508L	Sheet Length (m)	0.50 – 4.00
		JIS 3100	C2720		

MECHANICAL PROPERTIES — typical values at 20°C

Temper	HV	Tensile MPa	Elong. %	Grain Size mm
Annealed	≤80	≥275	≥40	0.035–0.100
1/4 Hard	75–110	335–380	≥30	0.015–0.050
1/2 Hard	110–135	380–450	≥15	≤0.015
Hard	135–165	450–515	≥5	≤0.010
Extra Hard	165–185	515–660	—	≤0.005
Spring Hard	≥185	≥660	—	≤0.005

PHYSICAL PROPERTIES — annealed temper at 20°C

Density (g/cm³)	Elec. Conductivity (% IACS)	Thermal Conductivity (W/m·K)	Modulus of Elasticity (GPa)	Specific Heat (J/kg·K)
8.44	24	116	108	377

FABRICATION PROPERTIES

Fabrication Property	Rating	Fabrication Property	Rating
Capacity for Cold Working	Excellent	Soft Soldering	Excellent
Machinability	Less suitable	Resistance Welding	Good
Electroplating	Excellent	Gas Shielded Arc Welding	Fair
Hot Dip Tinning	Excellent	Laser Welding	Fair

CORROSION RESISTANCE

MEI-63L has the same corrosion behaviour as MEI-63 Yellow Brass. Good resistance to water, water vapor, saline solutions, organic liquids, land/sea/industrial atmosphere. Not resistant to acids or hydrous ammonia without stress relief. Fully RoHS and drinking water compliant.

TYPICAL APPLICATIONS

• Handicrafts and decorative goods	• Button industry components
• Food grade utensils and fittings	• Potable water contact applications
• Jewelry and metal goods	