

OVERVIEW

MEI-115 (CuZn0.5) is a low-alloyed zinc copper with very high conductivity and enhanced softening resistance. Excellent cold forming, stamping and bending properties. Deep drawing is better than Cu-ETP and Cu-DHP. Corrosion resistance, brazing, soldering and hydrogen embrittlement resistance are also good.

CHEMICAL COMPOSITION (wt. %)		ALLOY DESIGNATIONS		COIL / SHEET SPECIFICATIONS	
Element	Composition (%)	Standard	Designation	Specification	Range
Cu	Remainder	EN	CW119C	Thickness (mm)	0.3 – 25.00
Zn	0.1 – 1.0			Width (mm)	≤1250
P	≤0.02			Length (mm)	≤2500
Other	≤0.10				

MECHANICAL PROPERTIES — typical values at 20°C

Temper	Tensile MPa (Min – Max)	HV (Min – Max)	Elong. % T<2.5mm	Elong. % T>2.5mm
R200	200 – 250	40 – 65	—	≥42
R220	220 – 260	40 – 65	≥33	≥42
R240	240 – 300	65 – 95	≥8	≥15
R240	290 – 360	90 – 110	≥4	≥6
R360	≥360	≥110	≥2	—

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)
8.92	79 – 88	350	125	386

FABRICATION PROPERTIES

Fabrication Property	Rating	Fabrication Property	Rating
Cold Forming Properties	Excellent	Hot Tinning	Good
Hot Forming Properties	Excellent	Soft Soldering	Good
Machinability (Rating 25)	Fair	Brazing	Good

CORROSION RESISTANCE

MEI-115 is resistant to industrial atmosphere (formation of dark or green protective layers), industrial and drinking water (max flow rate approx. 1.5 to 2 m/s). Pure water vapour and neutral saline solutions can be processed in hydrogen-containing atmospheres. Practically resistant against stress corrosion cracking.

TYPICAL APPLICATIONS

Automotive: starters, switches, relays, contacts, connectors and terminals	Electrical: leadframes, cables for telecommunication, antenna and data cables
Industrial: metal goods, apparatus and construction industry	Deep drawn components with better formability than Cu-ETP or Cu-DHP