

Material Designation	
EN	Cu-ETP
UNS	C11000
EUR	CW004A

Chemical Composition		
Cu	(wt.%)	≥ 99.90
O	(wt.%)	0.005 – 0.040

Typical Application
<ul style="list-style-type: none"> - General Electronic Applications - Stamped parts - Connectors - Cable Strip - Heatsinks

Physical Properties		
Electrical Conductivity *	58.0 100	MS/m % IACS
Thermal Conductivity	390	W/(m-K)
Thermal Expansion	17,7	10 ⁻⁶ /K
Density	8,94	g/cm ³
Elastic Modulus	127	GPa
* In Soft Condition		

Fabrication Properties	
Machining	Poor
Cold Working	Excellent
Electroplating	Excellent
Soft Soldering	Excellent
Hot-Dip Tinning	Excellent
Resistance Welding	Fair

Corrosion Resistance
Good resistance to <ul style="list-style-type: none"> - Pure water vapour - Industrial atmospheres - Non-oxidizing acids - Alkalis (except for ammonia and Cyanide-containing compounds) - Neutral saline solutions
Sensitive to <ul style="list-style-type: none"> - Hydrogen embrittlement - Seawater. Especially with high flow rates

Mechanical Properties					
Temper		R220	R240	R290	R360
Tensile Strength R _m	MPa	220 – 260	240 – 300	290 – 360	≥ 360
Yield Strength R _{p0.2}	MPa	≤ 140	≥ 180	≥ 250	≥ 320
Elongation A _{50 mm}	%	≥ 33	≥ 8	≥ 4	≥ 2
Hardness	HV	40 – 65	65 – 95	90 – 110	≥ 110
Bendability 90° Relative Bending Radius r/t **	Good Way / Bad Way	0 / 0	0 / 0	0 / 0.5	1 / 2
** Strip Thickness t ≤ 0.5 mm					

Special Characteristics
C101 or Extra Tough Pitch Copper is one of the most commonly used Copper alloy for Electronic applications. It is the most conductive of all the Copper alloys as well as providing excellent corrosion resistance properties.

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