

CU-DLP ⁽¹⁾

Réf. ASTM n°UNS : C12000

Réf. Normes Européennes : CW023A

Indicative Chemical Composition

Cu :	> 99,90 %
P :	0.005-0.013 %

TYPICAL APPLICATIONS

Electrical :	Electronics and electrical components
Mécanical :	Heat exchangers and radiators
CHemical :	All coppersmith'work involving welding

MECHANICAL CHARACTERISTICS (European Standard : EN 1652) _____

Temper H :		H 040	H 065	H 090	H 110
Hardness	HV	40-65	65-95	90-110	≥ 110

Temper R :		R 220	R 240	R 290	R 360
Tensile Strength	TS (MPa)	220-260	240-300	290-360	≥ 360
Yield Strength ⁽²⁾	YS 0,2 (MPa)	≤ 140	≥ 180	≥ 250	≥ 320
Elongation ⁽³⁾	E50 (%)	≥ 33	≥ 8	≥ 4	≥ 2

BENDING RADIUS FOLLOWING THE THICKNESS RELATED TO TEMPER ABOVE _____

Radius of Bending ⁽⁴⁾	90° Good Way	0 × t	0 × t	0 × t	⁽⁵⁾
	90° Bad Way	0 × t	0 × t	0,5 × t	⁽⁵⁾

MECHANICAL CHARACTERISTICS FOLLOWING OLD STANDARDS _____

TEMPER OF OLD NF STANDARD		0	H 11	H 12	H 13	H 14,1	H 14,2
Hardness	HV	46-60	60-85	85-110	100-115	115-130	≥ 120
Tensile Strength	TS (MPa)	200-270	230-280	260-320	320-380	340-430	≥ 350
Yield Strength	YS 0,2 (MPa)	≤ 120	≥ 135	≥ 250	≥ 310	≥ 330	≥ 340
Elongation	E50 (%)	30	25	10	2	1	—
Radius of bending ⁽⁴⁾	90° Good Way	0 × t	0 × t	0 × t	0 × t	0,5 × t	⁽⁵⁾
	90° Bad Way	0 × t	0 × t	0 × t	0,5 × t	1 × t	⁽⁵⁾

PHYSICAL CHARACTERISTICS (at 20°C) ⁽⁶⁾ _____

Density (Kg/dm ³)	Electrical Conductivity (% IA CS)	Electrical Resistivity (μΩ,cm)	Thermal Conductivity (W/m,K)	Modulus of elasticity (kN/nm ²)	Thermal expansion (10-6/K)	Melting Temperature (°C)	Modulus of shearing (kN/mm ²)
8,9	90	1.92	380	120	17	1083	45

⁽¹⁾ Old French standard designation : Cu-b2

⁽²⁾ Indicatives values

⁽³⁾ For Thickness < 2,5 mm

⁽⁴⁾ Bending radius is expressed as a function of thickness (t) of the strip

⁽⁵⁾ Bending possible to be defined with Griset

⁽⁶⁾ values for annealed temper

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