

CU-DHP ⁽¹⁾

Réf. ASTM n°UNS : C12200

Réf. Normes Européennes : CW004A

Indicative Chemical Composition

Cu :	> 99,90 %
P :	0.015-0.04 %

TYPICAL APPLICATIONS

Electrical :	Electronics and electrical components
Mechanical :	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 STANDARD _____

TEMPER OF OLD NF STANDARDS		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	80	2.2	330	120	17	1083	45

(1) Old French Standard designation: Cu-b1

(2) Indicatives values

(3) For Thickness < 2,5 mm

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

(5) Bending possible to be defined with Griset

(6) values for annealed temper

This document has been prepared for informational purposes and the values are indicative. Our responsibility can not be undertaken without a formal contract review. Our commercial and technical services remain at your service to study the proper matching of your needs in adequacy with physico-mechanical properties of our material.