

SPECIFICATION NORDIC BRONZE,

CuSn4

EN CW 450K

UNS C 51100

Dimension:

Width range max 780 mm

Thickness range 0,6...2,0 mm

Sheet length max 6000mm.

Chemical Composition %:

Tin (Sn) 3,5 -4,5

Phosphorus (P) 0,01 - 0,4

Copper (Cu) Rem.

Physical properties:

Density 8.85 kg/dm³

Thermal expansion $17 \cdot 10^{-6} \text{ 1/K}$ ($\Delta T \text{ 100}^\circ\text{C} = 1,7\text{mm/m}$)

Mechanical properties:

The material fulfils the requirements of standard EN 1172:2011(E)

Table 2 — Mechanical properties

Designation		Material condition	Tensile strength		0,2 % proof strength		Elongation	Hardness	
Material Symbol	Number		R_m		$R_{p0,2}$		A_{50mm}	HV	
			N/mm ²		N/mm ²		%	min.	max.
			min.	max.	min.	max.	min.		
Cu-DHP CuZn0,5	CW024A CW119C	R220	220	260	—	140	33	—	—
		H040	—	—	—	—	—	40	65
		R240	240	300	140	—	8	—	—
		H065	—	—	—	—	—	65	95
		R290	290	—	250	—	—	—	—
		H090	—	—	—	—	—	—	90
CuSn0,15	CW117C	R250	250	320	200	—	9	—	—
		H060	—	—	—	—	—	60	90
		R300	300	370	250	—	4	—	—
		H085	—	—	—	—	—	85	110
CuAl5Zn5Sn1	CW309G	R400	400	—	170	—	45	—	—
		H080	—	—	—	—	—	80	—
CuSn4	CW450K	R290	290	390	—	190	40	—	—
		H070	—	—	—	—	—	70	100
CuZn15	CW502L	R310	310	370	200	290	10	—	—
		H090	—	—	—	—	—	90	115

Fabrication properties:

Formability	Excellent
Soldering	Excellent
Brazing	Excellent
Resistance welding	Good
OA welding	Fair

Typical use

Architecture, eg. roofing, facades, window and door frames, decoration