

Alloy Designation	
EN	CuBe2 / CW101C
DIN	CuBe2 / 2.1247
UNS	C17200 ASTM B194
JIS	C1720 JIS H3130

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Chemical Composition		
Be	1.8 - 2.0	%
Ni+Co	min. 0.2	%
Ni+Co+Fe	max. 0.6	%
Cu+Be+Ni+Co+Fe	min. 99.5	%

Characteristics
C17200 strip offers among the highest strength of copper alloys while retaining electrical conductivity that exceeds most other high-strength coppers. Because it is heat-treated after forming, the material combines excellent ductility and formability with strong resistance to stress-relaxation and outstanding fatigue performance—even at elevated temperatures. In annealed or lightly cold-worked conditions it also provides very good bendability.

Main Applications
Pressure sensor bellows
Burn-in and test socket contacts
Computer processor socket contacts
Electromagnetic shielding gaskets

Physical Properties (Reference values at room temperature)		
Density	g/cm ³	8.3
Electrical conductivity	IACS%(20°C)*	20
Modulus of elasticity	KN/mm ²	130
Coefficient of thermal expansion	10 ⁻⁶ /K	17.5
Thermal conductivity	W/(m*K)	105

*value for the lowest temper class

Mechanical Properties					
TEMPER		Tensile Strength Mpa	Yield Strength Mpa	Elongation %	Hardness Hv
A	TB00	410 - 540	190 - 380	min. 35	90 - 150
1/4H	TD01	510 - 610	400 - 560	min. 15	120 - 190
1/2H	TD02	590 - 690	510 - 660	min. 8	175 - 220
H	TD04	690 - 830	620 - 800	min. 2	215 - 290
AT	TF00	1130 - 1350	920 - 1210	min. 3	350 - 410
1/4HT	TH01	1200 - 1420	1020 - 1280	min. 2.5	355 - 430
1/2HT	TH02	1260 -1490	1090 - 1350	min. 1	370 - 440
HT	TH04	1310 - 1520	1130 - 1420	min. 1	375 - 450

TEMPER		Tensile Strength Mpa	Yield Strength Mpa	Elongation %	Hardness Hv
1/4HM	TM01	750- 870	550 - 760	min. 15	235 - 280
1/2HM	TM02	830 - 960	650 - 860	min. 12	260 - 310
HM	TM04	930 - 1080	750 - 980	min. 9	290 - 350
SHM	TM05	1030 - 1150	860 - 1020	min. 9	310 - 360
XHM	TM06	1070 - 1250	930 - 1180	min. 4	345 - 395
XHMS	TM08	1200 - 1320	1030 - 1240	min. 3	365 - 420

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Contact Us:		TriangleAlloy Headquarter
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