

Alloy Designation	
EN	CuSn2Ni0.3P
DIN	CuSn2Ni0.3P
UNS	C50710
JIS	C5071/ (MF202*)

*is a trademark licensed by Furukawa / MITSUBISHI

Chemical Composition		
Ni	0.1 - 0.4	%
Sn	1.7 - 2.5	%
P	max. 0.15	%
Cu	Remainder	

Characteristics
C50710 is based on phosphor bronze, with approximately 2% tin and small amounts of nickel and phosphorus added to copper. It has high electrical conductivity and is comparable in strength to C51100, but with twice the conductivity. It has good elasticity, heat resistance, corrosion resistance, in many cases can replace Phosphor Bronze.

Main Applications
Electrical and electronic connectors
Automobile Connectors Switch parts
The terminal member
Battery connector Busbar

Physical Properties (Reference values at room temperature)		
Density	g/cm3	8.88
Electrical conductivity	IACS%(20°C)*	32
Modulus of elasticity	KN/mm ²	120
Coefficient of thermal expansion	10 ⁻⁶ /K	17
Thermal conductivity	W/(m*K)	155

*value for the lowest temper class

Mechanical Properties							
TEMPER		Tensile Strength Mpa	Yield Strength Mpa	Elongation %	Hardness HV	Bending Test(90°) GW BW	
H02	1/2H	410 - 520	-	min. 10	125 - 170	0	0
H04	H	490 - 590	-	min. 5	150 - 190	1.5	1.5
H06	EH	540 - 640	-	min. 2	170 - 210	2	2

*This leaflet is for general information only and is not subject to revision. No claims can be derived from it unless there is evidence of intent or gross negligence. The data given are no warranty that the product is of a specified quality and they cannot replace expert advice or the customer’s own test.