

Alloy Designation	
EN	CuFe0.1P
DIN	CuFe0.1P
UNS	C19210 ASTM B465
JIS	C1921

Chemical Composition		
Fe	0.05 - 0.15	%
P	0.025 - 0.04	%
Cu	Remainder	

Characteristics
C19210 is a micro-alloyed Cu–Fe–P alloy (about 0.10% Fe, 0.03% P) with fine iron precipitates that provide very high electrical and thermal conductivity alongside improved mechanical stability. It combines excellent cold-forming and tinning characteristics with good softening and stress-relaxation resistance at elevated temperatures and a relatively high modulus.

Main Applications
Leadframes for ICs and power transistors, connector pins, contact parts and terminals
Busbars and junction-box conductors, relay and distribution contact components.
Connector pins, battery clamps, and various electrical components and terminals
Cooling fins and radiator components (automotive and heavy-duty), heat-exchanger tubing, HVAC tubing.

Physical Properties (Reference values at room temperature)		
Density	g/cm ³	8.9
Electrical conductivity	IACS%(20°C)*	86
Modulus of elasticity	KN/mm ²	125
Coefficient of thermal expansion	10 ⁻⁶ /K	17
Thermal conductivity	W/(m*K)	350

*value for the lowest temper class

Mechanical Properties							
TEMPER		Tensile Strength Mpa	Yield Strength Mpa	Elongation %	Hardness HV	Bending Test(90°) GW BW	
R300	H01	295 - 380	min. 220	min. 10	80 - 110	0	0
R360	H03	360 - 440	min. 260	min. 3	100 - 130	0.5	0.5
R420	H06	415 - 500	min. 350	min. 2	120 - 150	1	1

*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.