

Alloy Designation	
EN	CuFe2P / CW107C
DIN	CuFe2P / 2.1310
UNS	C19400 ASTM B465
JIS	C1940

Chemical Composition		
Fe	2.1 - 2.6	%
Zn	0.05 - 0.2	%
P	0.015 - 0.15	%
Cu	Remainder	

Characteristics
C19400 is a medium-strength copper alloy strengthened by fine Fe precipitates that deliver improved mechanical stability and stress-relaxation resistance. It combines good electrical and thermal conductivity with higher strength than standard copper or brass, making it a compact, reliable choice when better mechanical performance and stable conductivity are required.

Main Applications
Semiconductor & Lighting: Lead frames for ICs and power transistors, LED leadframes and packages
Electrical connectors and contact pins, Terminal strips and wire-to-board contacts, Circuit breakers and fuse clips, Contact springs, clamps and plug contacts, Terminal strips and wire-to-board contacts
Automotive: Fuel-injector components, Relay and fuse-box contacts and terminals

Physical Properties (Reference values at room temperature)		
Density	g/cm ³	8.91
Electrical conductivity	IACS%(20°C)*	64
Modulus of elasticity	KN/mm ²	121
Coefficient of thermal expansion	10 ⁻⁶ /K	16.3
Thermal conductivity	W/(m*K)	260

*value for the lowest temper class

Mechanical Properties							
TEMPER		Tensile Strength Mpa	Yield Strength Mpa	Elongation %	Hardness HV	Bending Test(90°) GW BW	
R300	O61	300 - 360	max. 240	min. 18	80 - 100	0	0
R340		340 - 390	min. 240	min. 10	100 - 120	0	0
R370	H02	370 - 435	min. 330	min. 6	120 - 140	0	0
R420	H04	420 - 485	min. 380	min. 3	130 - 150	0.5	0.5
R470	H06 H08	470 - 530	min. 440	min. 2	140 - 160	0.5	0.5

*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.