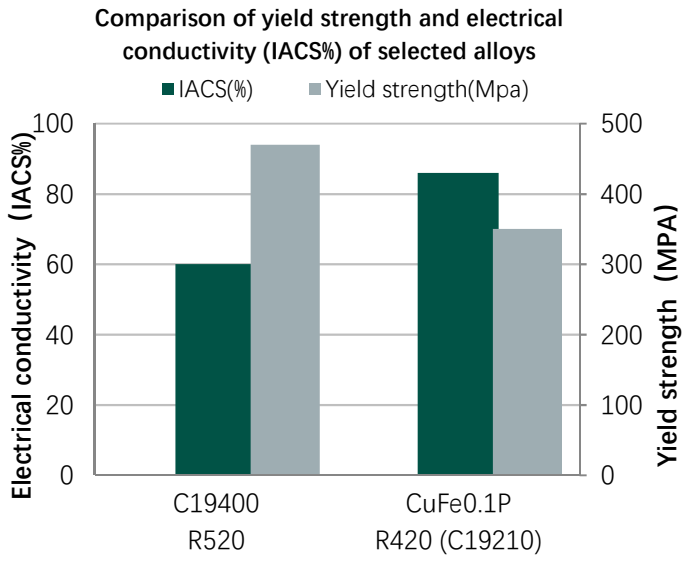


## 4.12 C19400 CW107C

Application Range											
Hardenable Cu-Fe alloy with good electrical conductivity for components with low and medium strength requirements. "Senior" (oldest) special alloy. Good resistance against relaxation. Classical material for terminals, lead-frames and power transistors.											
Physical Properties							Chemical Position (reference value) %				
Density *	g/cm <sup>3</sup>		8.9				Cu		Rest		
Thermal conductivity *	W/(m·k)		260				Fe		2.1 - 2.6		
Electr. conductivity ***	MS/m		35				Zn		0.05 - 0.20		
Electr. conductivity ***	IACS (%)		60				Other		max. 0.2		
Thermal expansion c. **	10 <sup>-6</sup> K		16.3								
Modulus of elasticity *	Gpa		125								
Condition	Temper class	Tensile strength	Yield strength	Elongation	Hardness	Electr. conductivity	Bendability		Bendability		<p>Comparison of yield strength and electrical conductivity (IACS%) of selected alloys</p> 
		T.S. min. - max. MPa	Rp 0.2 min. MPa	A50 min. %	(reference value) HV		R/t <sup>1) 2)</sup> 90°	R/t <sup>1) 2)</sup> 180°	GW Strip thickness ≤0.5mm	BW Strip thickness ≤0.5mm	
Cold rolled	R300	300 - 360	max. 240	18	80 - 100	35	0	0	0	0	
Cold rolled	R360	360 - 430	270	15	110 - 135	35	0	0	0	0.5	
Cold rolled	R420	420 - 480	380	10	130 - 150	35	0.5	0.5	1	1	
Cold rolled	R480	480 - 540	430	7	140 - 160	35	0.5	0.5	1	1.5	
Cold rolled	R520	520 - 580	470	4	min. 140	35	2.5	3.5	3	4.5	

\*Reference values at room temperature

\*\*Between 20 and 300 °C

\*\*\* Values for the lowest temper class

1)  $r = x \cdot t$  (strips up to  $t = 0.50$  mm)

2) Sample width = 10 mm / bending at smaller bending widths on request (Evaluation according to page 5.4.2. of Hand-Out)

3) Valid only as thermal stress relieved qualities

Disclaimer: Due to possible changes and variations in the production process, the information published in the hand-out / brochure / datasheet cannot be guaranteed. The right to changes and modifications in the composition of the products is hereby explicitly reserved, so no warranty claim shall be derived from the information provided.