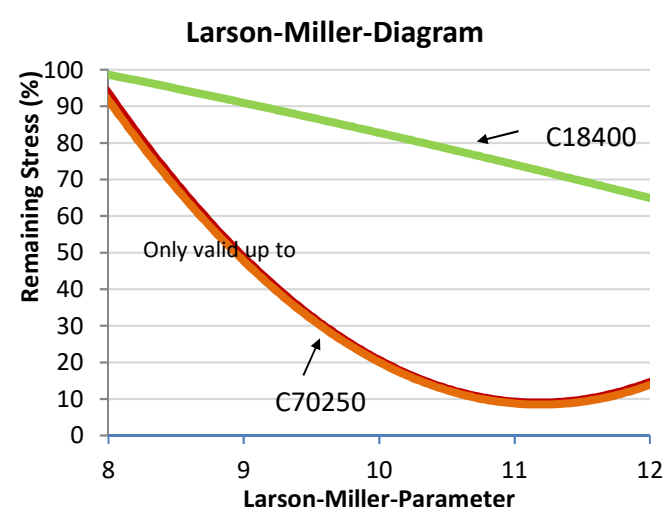


# C18150/C18400

Application Range											
Cu-Cr alloy with a combination of very high electrical conductivity and very good resistance against relaxation even at 200°C. The alloy is well suited for components needing middle-level strength. Applications are in the field of cell phones, high voltage connectors and photovoltaics.											
Physical Properties							Chemical Position (reference value) %				
Density *	g/cm <sup>3</sup>		8.9		Cu (incl. Ag)		Rest				
Thermal conductivity *	W/(m·K)		330		Cr		0.20-1.20				
Electr. conductivity ***	MS/m		50		Zr		0.05-0.25				
Electr. conductivity ***	IACS (%)		86		Fe		max. 0.30				
Thermal expansion c. **	10 <sup>-6</sup> K		18.6		Si		max. 0.10				
Modulus of elasticity *	Gpa		137		Other		max. 0.10				
Condition	Temper class	Tensile strength	Yield strength	Elongation	Hardness	Electr. Conductivity	Bendability		Bendability		
		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	BW	GW	BW		
						Strip thickness	Strip thickness	Strip thickness	Strip thickness		
						≤0.5mm	≤0.5mm	≤0.5mm	≤0.5mm		
Cold rolled	R480	480 - 560	450	8	150 - 190	50	1.5	1.5	2	2	
Cold rolled	R540	540 - 630	500	4	160 - 200	50	2	2	2.5	3	
Cold rolled	R540S	540 - 620	500	8	160 - 190	50	1.5	1.5	2	2.5	

\*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.