

## 4.8 C18665

Application Range											
Connectors for automotive, electric and electronic applications, relays, current carrying springs, busbars and relay boxes with spring properties; combined high electrical conductivity at highest strength and relaxation resistance; excellent bending at middle strength.											
Physical Properties							Chemical Position (reference value) %				
		Density *	g/cm <sup>3</sup>			8.8	Cu (incl. Ag)		min. 99.0		
		Thermal conductivity *	W/(m·k)			270	Mg		0.4 - 0.9		
		Electr. Conductivity ***	MS/m			34					
		Electr. Conductivity ***	IACS (%)			58					
		Thermal expansion c. **	10 <sup>-6</sup> K			17.3					
		Modulus of elasticity *	GPa			130					
Condition	Temper class	Tensile strength T.S. min. - max. MPa	Yield strength Rp <sub>0.2</sub> min. MPa	Elongation		Hardness (reference value) HV	Electr. conductivity MS/m	Bendability R/t <sup>1) 2)</sup> 90°		Bendability R/t <sup>1) 2)</sup> 180°	
				A50 min. %				GW Strip thickness ≤0.5mm	BW Strip thickness ≤0.5mm	GW Strip thickness ≤0.5mm	BW Strip thickness ≤0.5mm
Cold rolled	R380	380 - 460	330	14	17 <sup>3)</sup>	115 - 145	34	0	0	0	0.5
	R460	460 - 520	410	10	12 <sup>3)</sup>	140 - 165	34	0.5	1	1.5	3
	R520	520 - 570	460	8	10 <sup>3)</sup>	160 - 180	34	1	2.5	2	5
	R570	570 - 620	500	6	8 <sup>3)</sup>	175 - 195	34	2.5	5	3.5	8
	R620 <sup>4)</sup>	min. 620	550	3	4 <sup>3)</sup>	min. 190	34	3	6	5	10

\*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

4) Max. Thickness ≤0.60mm

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