

STOL®76M - C19002



Application range:

Modified Cu-Ni-Si alloy, which in tinned version does not exhibit peeling-off of the coating during long-time temperature exposure of up to 130°C. The further material characteristics are mostly identical to those of STOL®76 with the exception of electrical conductivity, which is slightly lower.

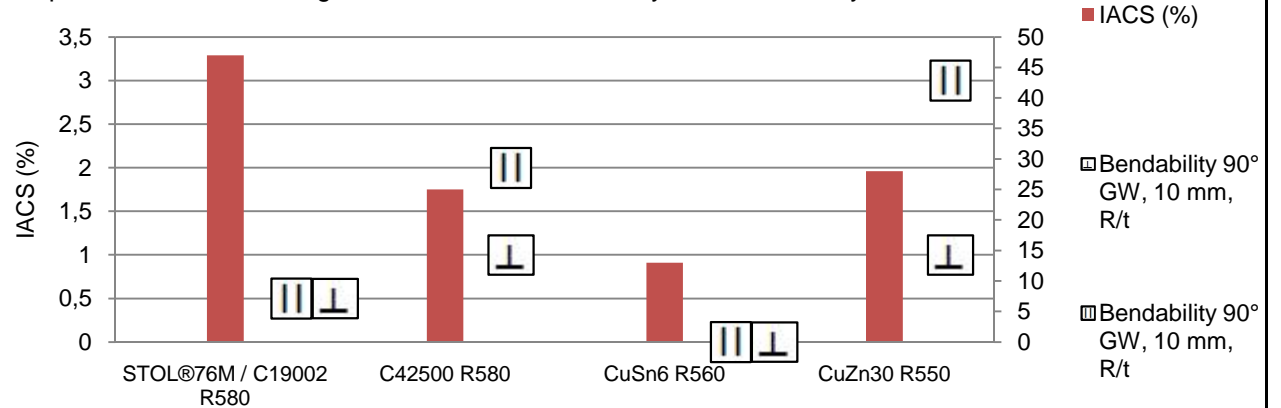
Physical properties

Density*	g/cm ³	8,9
Thermal conductivity*	W/(m·K)	260
Electr. Conductivity ***	MS/m	33 / 27
Electr. Conductivity ***	IACS (%)	57 / 47
therm. Expansion coefficient **	10 ⁻⁶ K	16,8
Modulus of elasticity*	GPa	135

Chemical composition (%)

Cu:	Rest	Sn:	0,2 - 0,3
Ni:	0,8 - 1,8	Zn:	0,35 - 0,5
Si:	0,2 - 0,35	Other:	max. 0,5

Comparison of tensile strength and electrical conductivity of selected alloys



Condition	Temper class	Tensile strength T.S. min.-max. MPa	Yield strength Rp 0,2 min. MPa	Elongation		Hardness (Reference value) HV	Electrical conduc- tivity MS/m	Bendability R/t ^{1) 2)}		Bendability R/t ^{1) 2)}	
				A50 min. %	14 ³⁾			90°		180°	
								gw Strip thickness ≤0,5 mm	bw Strip thickness ≤0,5 mm	gw Strip thickness ≤0,5 mm	bw Strip thickness ≤0,5 mm
cold rolled	R360	360 - 430	300	12	14 ³⁾	100 - 130	33	0	0	0	0,5
	R410	410 - 470	360	9	11 ³⁾	125 - 155	33	0	0,5	0,5	1
	R460	460 - 520	410	7	9 ³⁾	135 - 165	33	0,5	1	1,5	3
	R520	520 - 580	460	5	7 ³⁾	145 - 175	33	1	2	2,5	4
precipitation hardened	R530 ⁴⁾	530 - 630	430	14		150 - 190	27	0	0	1	2
	R580	580 - 660	540	8		170 - 200	27	1	1	3	5
	R580 S	580 - 660	520	9		170 - 200	27	0,5	0,5	1,5	2
	R620 ⁵⁾	620 - 700	560	7		180 - 210	27	1	1,5	3	5

⁵⁾ Thickness max ≤ 0,60 mm

* Reference values at room temperat ** Between 20 and 300 °C

*** Value for the lowest cold worked temper class 57 IACS, for the lowest age hardened temper class 47 MS/m

³⁾ values for stress relieved qualities

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)

⁴⁾ Thickness on request

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.

KMD Connectors Stolberg GmbH
Frankentalstraße 5
52222 Stolberg
GERMANY

Email: info-connectors@kmdgroup.com
Phone +49 (0) 2402 105-0
Fax +49 (0)24 02105355
<http://www.kmdgroup.com/>

Revision: 06/2016