



TEMCO ALLOY C65100

TECHNICAL DATA SHEET

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COMMON USES: TEMCO Alloy C65100 is one of several silicon bronze alloys that were specifically developed for higher resistance rotor bar. Close control of the chemistry, including trace elements, at our in-house casting facility allows us to control the electrical properties within a very narrow range. This insures our customers the same electrical properties each time they order. Consult our Sales Department to discuss your specific application.

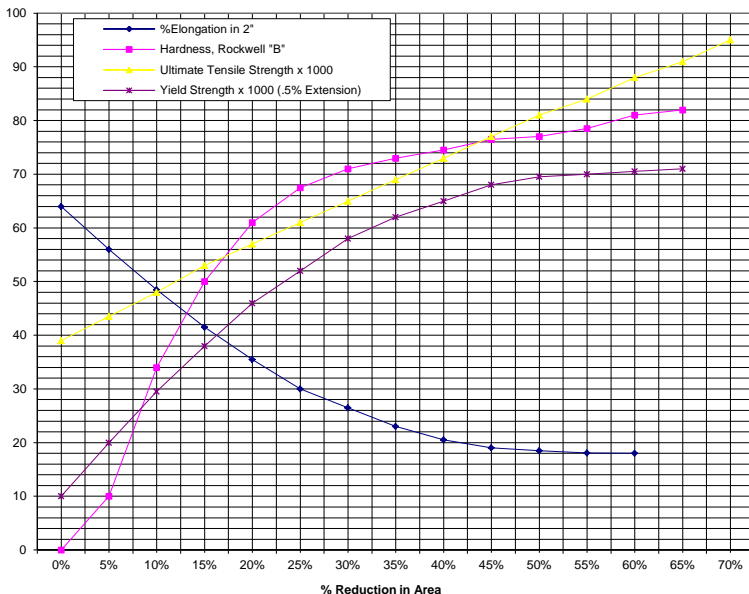
CHEMISTRY		
ELEMENT	NOMINAL %	RANGE %
Copper	98	Remainder
Silicon	1.6	.8 – 2.0
Maganese	0.4	.7 max.
Zinc	--	1.5 max.
Iron	--	0.8 max.
Lead	--	0.05 max.

TEMPER	TYPICAL PROPERTIES			
	TENSILE STRENGTH ksi (MPa)	YIELD STRENGTH* ksi (MPa)	ELONGATION %	HARDNESS ROCKWELL
Annealed (061)	40 (275)	10 (69)	63	RF 50
Ho1 (10%)	48 (330)	30 (205)	48	RB 33
Ho2 (20%)	57 (390)	46 (315)	35	RB 60
Ho4 (36%)	70 (480)	62 (425)	22	RB 74

*0.5 % EXTENSION UNDER LOAD

CAPABILITY FOR BEING COLD WORKED	EXCELLENT
CAPABILITY FOR BEING HOT WORKED	EXCELLENT
HOT WORKING TEMPERATURE	1300° - 1600° F 700° - 875° C
ANNEALING TEMPERATURE	900° - 1250° F 475° - 675° C

SOFT SOLDERING	EXCELLENT
SILVER ALLOY BRAZING	EXCELLENT
OXYACETYLENE WELDING	GOOD
COATED METAL ARC WELDING	FAIR
RESISTANCE WELDING	EXCELLENT



MISCELLANEOUS INFORMATION:

MACHINEABILITY RATE* 30

*Free Machining Brass = 100

CONDUCTIVITY 11 % ± 1 % IACS @ 68° F

DENSITY .316 lb/cu in (8.75 gm/cu cm @ 20° C)

NEAREST APPLICABLE ASTM SPEC: B96, B98, B432