THE ELECTRIC MATERIALS COMPANY
COMMUTATORS~EXTRUSIONS~ROTOR BAR~CASTINGS~FORGINGS
A UNITED STARS CO.

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TEMCO ALLOY C24000

TECHNICAL DATA SHEET

COMMON USES: TEMCO Alloy C24000 has been specifically developed for rotor bar applications. 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	80	78.5 – 81.5
Zinc	20	Remainder
Lead	--	.05 max.
Iron	--	.05 max.

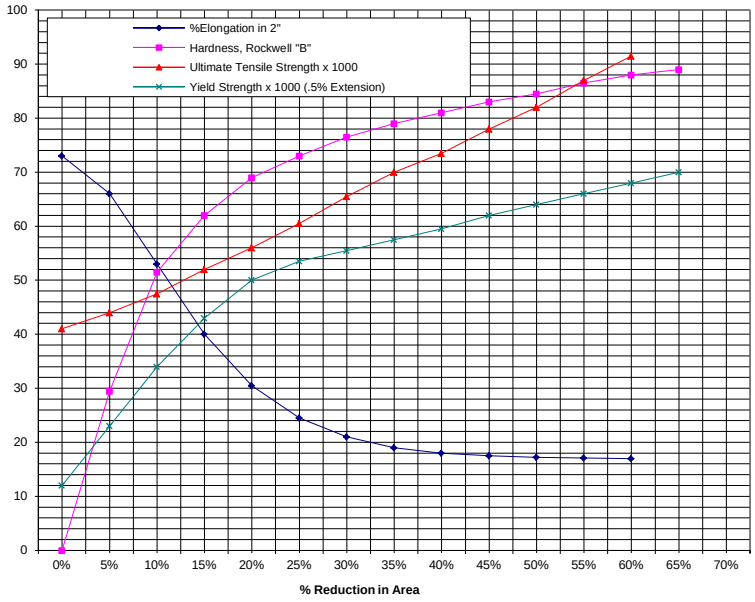
TYPICAL PROPERTIES

TEMPER	TENSILE STRENGTH ksi (MPa)	YIELD STRENGTH* ksi (MPa)	ELONGATION %	HARDNESS ROCKWELL
Annealed (061)	41 (280)	11 (75)	72	RF 60
Ho1 (10%)	47 (325)	34 (235)	52	RB 50
Ho2 (20%)	56 (385)	50 (345)	30	RB 68
Ho4 (36%)	70 (482)	58 (400)	18	RB 79

*0.5 % EXTENSION UNDER LOAD

CAPABILITY FOR BEING COLD WORKED	EXCELLENT
CAPABILITY FOR BEING HOT WORKED	FAIR
HOT WORKING TEMPERATURE	1500° - 1650° F 825° - 900° C
ANNEALING TEMPERATURE	800° - 1300° F 425° - 700° C

SOFT SOLDERING	EXCELLENT
SILVER ALLOY BRAZING	EXCELLENT
OXYACETYLENE WELDING	GOOD
COATED METAL ARC WELDING	NOT RECOMMENDED
RESISTANCE WELDING	FAIR



MISCELLANEOUS INFORMATION:

MACHINEABILITY RATE* 30
*Free Machining Brass = 100

CONDUCTIVITY 32 % ± 1 % IACS @ 68° F

DENSITY .313 lb/cu in (8.67 gm/cu cm @ 20° C)

NEAREST APPLICABLE ASTM SPEC: *B36, B134*