



# TEMCO ALLOY C14700

## TECHNICAL DATA SHEET

UNCONTROLLED COPY

**COMMON USES:** TEMCO Alloy C14700 is used in applications that require a combination of good electrical properties (electrical conductivity 90% minimum) and excellent machineability. Consult our Sales Department to discuss your specific application.

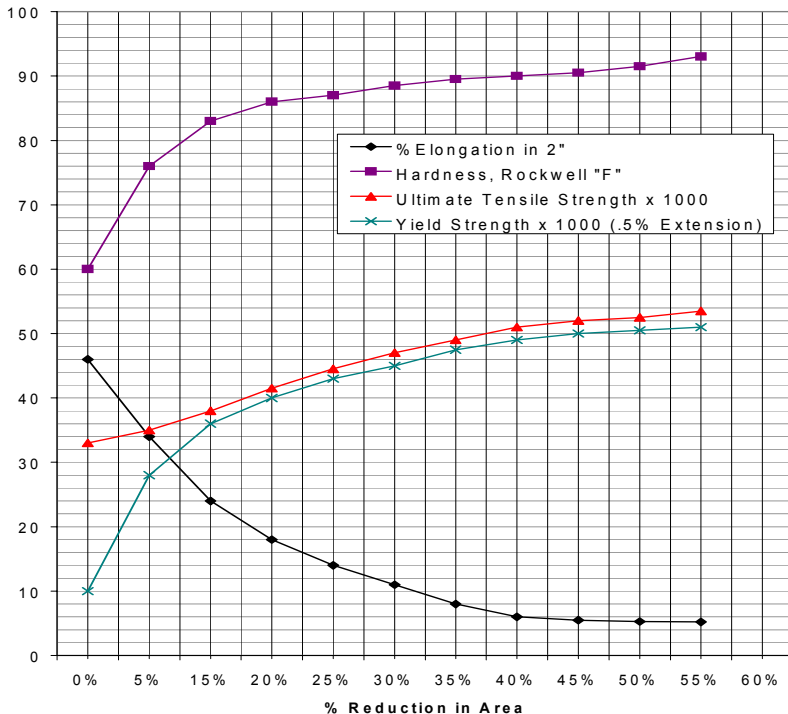
CHEMISTRY		
ELEMENT	NOMINAL %	RANGE %
Copper	--	99.90 min. <sup>1</sup>
Sulfur	0.35	0.20 – 0.50
Phosphorus	0.0035	0.002 – 0.005

<sup>1</sup>Includes sulfur, phosphorus & silver

CAPABILITY FOR BEING COLD WORKED	GOOD
CAPABILITY FOR BEING HOT WORKED	EXCELLENT
HOT WORKING TEMPERATURE	1400° - 1600° F 750° - 875° C
ANNEALING TEMPERATURE	800° - 1200° F 425° - 650° C

TEMPER	TYPICAL PROPERTIES			
	Diameter or Distance Between Parallel Surfaces, in.	TENSILE STRENGTH ksi (MPa)	YIELD STRENGTH* ksi (MPa)	ELONGATION %**
<b>H02</b>	<b>Rod:</b> 1/16 to 1.4, incl.	38 (260)	30 (205)	8
	over 1.4 to 2 5/8, incl.	38 (260)	30 (205)	12
<b>H04</b>	<b>Rod (round only):</b> 1/16 to 1/4, incl.	48 (325)	40 (275)	4
	over 1/4 to 1 1/4, incl.	44(300)	38 (260)	8
	over 1 1/4 to 3, incl.	40 (275)	35 (240)	8
	<b>Bar:</b> over 0.1888 to 1/8, incl.	42 (285)	35 (240)	10
	over 1/8 to 1/2, incl.	40 (275)	32 (220)	10
	over 1/2 to 2, incl.	33 (225)	18 (125)	12
	over 2 to 4, incl.	32 (220)	15 (100)	12

\*0.5% EXTENSION UNDER LOAD (not determined unless specifically requested)  
\*\*In 4x diameter or thickness of specimen (in any case a minimum gage length of 1 in. shall be used).



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

### MISCELLANEOUS INFORMATION:

MACHINEABILITY RATE\* 85

\*Free Machining Brass = 100

CONDUCTIVITY 90% MINIMUM IACS @ 68° F

DENSITY .323 lb/cu in (8.94 gm/cu cm @ 20° C)

NEAREST APPLICABLE ASTM SPEC: B301