



C22600

Jewelry Bronze, 87-1/2%

Chemical Composition

(%max., unless shown as range or min.)

	Cu	Fe	Pb	Zn
Min./Max.	86.0-89.0	0.05	0.05	Rem.
Nominal	87.5	-	-	12.5

Note: Cu + Sum of Named Elements, 99.8% min.

Applicable Specifications

Product	Specification
Bar	ASTM B36
Plate	ASTM B36
Sheet	ASTM B36
Strip	ASTM B36
Wire	ASTM B134

Common Fabrication Processes

Blanking, Coining, Drawing, Etching, Forming and Bending, Heading and Upsetting, Piercing and Punching, Roll Threading and Knurling, Shearing, Spinning, Squeezing and Swaging, Stamping

Millard Wire & Specialty Strip Co.

449 Warwick Industrial Drive • Warwick, RI 02886
Phone: (401) 737-9330 • Fax: (401) 737-9340



Fabrication Properties

Joining Technique	Suitability
Soldering	Excellent
Brazing	Excellent
Oxyacetylene Welding	Good
Gas Shielded Arc Welding	Good
Coated Metal Arc Welding	Not Recommended
Spot Weld	Fair
Seam Weld	Not Recommended
Butt Weld	Good
Capacity for Being Cold Worked	Excellent
Capacity for Being Hot Formed	Good
Machinability Rating	30

Thermal Properties

Treatment	Temp./Time – US	Temp./Time – SI
Stress Temperature		
Solution Minimum		
Solution Maximum		
Solution Time		
Solution Medium	None	
Precipitation Value		
Precipitation Time		
Precipitation Medium	None	
Annealing Minimum	800	427
Annealing Maximum	1400	761
Annealing Time		
Hot Works Minimum	1400	761
Hot Works Maximum	1650	900



C22600 Specification Sheet

Mechanical Properties

(Measured at Room Temperature, 68°F (20°C))

Temper	Section Size	Cold Work	Typ/Min	Temp	Tensile Strength	Yield Strength	Yield Strength	Yield Strength	EI	Rockwell Hardness				Vickers Hardness	Brinell Hardness		Shear Strength	Fatigue Strength	Izod Impact Strength
						(0.5% ext. under load)	(0.2% offset)	(0.05% offset)		B	C	F	30T	500	500	3000			
						ksi	ksi	ksi		%									
	in.	%		F	ksi	ksi	ksi	ksi		B	C	F	30T	500	500	3000	ksi	ksi	ft-lb
	mm.			C	MPa	MPa	MPa	MPa									MPa	MPa	J
Wire																			
H06	0.08	0	TYP	68	89	-	-	-	4	-	-	-	-	-	-	-	-	-	0
	2			20	614	-	-	-	4	-	-	-	-	-	-	-	-	-	0
Flat Products																			
H02	0.04	0	TYP	68	54	47	-	-	12	61	-	-	-	-	-	-	36	-	0
	1			20	372	324	-	-	12	61	-	-	-	-	-	-	248	-	0
OS015	0.04	0	TYP	68	44	16	-	-	42	-	-	68	-	-	-	-	32	-	0
	1			20	303	110	-	-	42	-	-	68	-	-	-	-	221	-	0
Wire																			
H00	0.08	0	TYP	68	47	-	-	-	26	-	-	-	-	-	-	-	34	-	0
	2			20	324	-	-	-	26	-	-	-	-	-	-	-	234	-	0
H01	0.08	0	TYP	68	56	-	-	-	12	-	-	-	-	-	-	-	36	-	0
	2			20	386	-	-	-	12	-	-	-	-	-	-	-	248	-	0
Flat Products																			
OS035	0.04	0	TYP	68	40	13	-	-	45	-	-	59	-	-	-	-	30	-	0
	1			20	276	90	-	-	45	-	-	59	-	-	-	-	207	-	0
H06	0.04	0	TYP	68	72	60	-	-	4	78	-	-	-	-	-	-	42	-	0
	1			20	496	414	-	-	4	78	-	-	-	-	-	-	290	-	0
H04	0.04	0	TYP	68	66	56	-	-	5	73	-	-	-	-	-	-	40	-	0
	1			20	455	386	-	-	5	73	-	-	-	-	-	-	276	-	0
Wire																			
OS015	0.08	0	TYP	68	45	18	-	-	38	-	-	-	-	-	-	-	32	-	0
	2			20	310	124	-	-	38	-	-	-	-	-	-	-	221	-	0
OS050	0.08	0	TYP	68	40	-	-	-	44	-	-	-	-	-	-	-	29	-	0
	2			20	276	-	-	-	44	-	-	-	-	-	-	-	200	-	0
Flat Products																			
H08	0.04	0	TYP	68	79	62	-	-	4	82	-	-	-	-	-	-	44	-	0
	1			20	545	427	-	-	4	82	-	-	-	-	-	-	303	-	0
Wire																			
H08	0.08	0	TYP	68	97	-	-	-	3	-	-	-	-	-	-	-	-	-	0
	2			20	669	-	-	-	3	-	-	-	-	-	-	-	-	-	0
H04	0.08	0	TYP	68	83	-	-	-	5	-	-	-	-	-	-	-	-	-	0
	2			20	572	-	-	-	5	-	-	-	-	-	-	-	-	-	0
OS035	0.08	0	TYP	68	41	18	-	-	42	-	-	-	-	-	-	-	30	-	0
	2			20	283	124	-	-	42	-	-	-	-	-	-	-	207	-	0
Flat Products																			
OS050	0.04	0	TYP	68	39	11	-	-	46	-	-	55	-	-	-	-	29	-	0
	1			20	269	76	-	-	46	-	-	55	-	-	-	-	200	-	0
Wire																			
H02	0.08	0	TYP	68	68	-	-	-	7	70	-	-	-	-	-	-	40	-	0
	2			20	469	-	-	-	7	70	-	-	-	-	-	-	276	-	0
OS025	0.08	0	TYP	68	43	-	-	-	40	-	-	-	-	-	-	-	31	-	0
	2			20	296	-	-	-	40	-	-	-	-	-	-	-	214	-	0
Flat Products																			
H01	0.04	0	TYP	68	47	37	-	-	25	47	-	-	-	-	-	-	34	-	0
	1			20	324	255	-	-	25	47	-	-	-	-	-	-	234	-	0
OS025	0.04	0	TYP	68	42	15	-	-	44	-	-	64	-	-	-	-	31	-	0
	1			20	290	103	-	-	44	-	-	64	-	-	-	-	214	-	0

*Fatigue Strength: 100 x 10⁶ cycles, unless indicated as [N]X 10⁶.

Physical Properties

Property	US Customary	Metric
Melting Point - Liquidus	1895° F	1035° C
Melting Point - Solidus	1840° F	1004° C
Density	0.317 lb/in ³ at 68° F	8.77 gm/cm ³ @ 20° C
Specific Gravity	8.78	8.78
Electrical Resistivity	25.90 ohms-cmil/ft @ 68° F	4.31 microhm-cm @ 20° C
Electrical Conductivity	40 %IACS @ 68° F	0.234 MegaSiemens/cm @ 20° C
Thermal Conductivity	100 Btu·ft/(hr·ft ² ·°F) at 68°F	173.1 W/m · °K at 20° C
Coefficient of Thermal Expansion	10.30·10 ⁻⁶ per °F (68-572° F)	18.5·10 ⁻⁶ per °C (20-300° C)
Specific Heat Capacity	0.090 Btu/lb/°F at 68° F	377.1 J/kg·°K at 293° K
Modulus of Elasticity in Tension	17000 ksi	117000 MPa
Modulus of Rigidity	6400 ksi	44130 MPa

Tempers Most Commonly Used

Flat Products	
STRIP, ROLLED	H00, H01, H02, H04, H06, H08, OS015, OS025, OS035, OS050
WIRE, DRAWN	OS015, OS025, OS035, OS050
WIRE, ROLLED	H00, H01, H02, H04, H08

Other	
WIRE	H00, H01, H02, H04, H08, OS015, OS025, OS035, OS050

Typical Uses

Architecture

Channels, Angles

Consumer

Zippers, Etched Articles, Chain Links, Lipstick Containers, Emblems, Plaques, Costume Jewelry, Compacts

Electrical

Fasteners, Slide Fasteners, Eyelets

Fasteners

Fasteners, Slide Fasteners, Eyelets



Casting Characteristics

No casting characteristics available for this alloy.