

**CDA260 (Cartridge Brass, 70%)****US EPA Registered Antimicrobial****Chemical Composition**

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

	Cu	Fe	Pb	Zn
Min. /Max.	68.5-71.5	.05	.07	Rem.
Nominal	70.0	-	-	30.0

Note: Cu + Sum of Named Elements, 99.7% min.

Applicable Specifications

Product	Specification
Bar	ASTM B36, B19 SAE J463, J461
Brazing Filler Metal	FEDERAL QQ-B-650
Cups, Cartridge Case	ASTM B129 MILITARY MIL-C-10375
Disk	ASTM B19
Plate	AMS 4507, 4505 ASTM B19, B36
Rod	SAE J461, J463
Sheet	AMS 4507, 4508, 4505 ASTM B19, B36 SAE J463, J461
Shim Stock, Laminated	MILITARY MIL-S-22499
Strip	AMS 4507, 4505 ASTM B36, B569, B19, B888 SAE J463, J461
Tube, Seamless	ASTM B135 FEDERAL WW-T-791 MILITARY MIL-T-20219 SAE J461, J463
Tube, Welded	ASTM B587, B587
Wire	ASTM B134 SAE J463, J461

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	Fair
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	1350	733
Hot Works Maximum	1550	844

Mechanical Properties (measured at room temperature, 68 F (20 C))

Temper	Section Size	Cold Work	Temp	Tensile Strength	Yield Strength (0.5% ext. under load)	Yield Strength (0.2% offset)	Yield Strength (0.05% offset)	Rockwell Hardness	Vickers Hard.	Brinell Hard.	Shear Strength	Fatigue Strength*	Izod Impact Strength
	in. mm.	%	F C	ksi MPa	ksi MPa	ksi MPa	ksi MPa	% B CF 30T500		5003000ksi MPa	ksi MPa		ft-lb J
Wire													
H06	0.08	0	TYP68	124	-	-	-	4 - - - -	-	-	-	-	0.0
	2		20	855	-	-	-	4 - - - -	-	-	-	-	0.0
Tube													
H80	0.0	35	TYP68	78	64	-	-	8 82- - 73 -	-	-	-	-	0.0
	0.0		20	538	441	-	-	8 82- - 73 -	-	-	-	-	0.0
Flat Products													
OS015	0.04	0	TYP68	53	22	-	-	54- - 7843 -	-	-	35	14	0.0
	1		20	365	152	-	-	54- - 7843 -	-	-	241	97	0.0
H02	0.04	0	TYP68	62	52	-	-	2570- - 65 -	-	-	40	18	0.0
	1		20	427	359	-	-	2570- - 65 -	-	-	276	124	0.0
Wire													
H00	0.08	0	TYP68	58	-	-	-	35- - - -	-	-	38	-	0.0
	2		20	400	-	-	-	35- - - -	-	-	262	-	0.0
H01	0.08	0	TYP68	70	-	-	-	20- - - -	-	-	-	-	0.0
	2		20	483	-	-	-	20- - - -	-	-	-	-	0.0
Flat Products													
H06	0.04	0	TYP68	86	65	-	-	5 88- - 76 -	-	-	46	-	0.0
	1		20	593	448	-	-	5 88- - 76 -	-	-	317	-	0.0
OS100	0.04	0	TYP68	44	11	-	-	66- - 5411 -	-	-	-	13	0.0
	1		20	303	76	-	-	66- - 5411 -	-	-	-	90	0.0
OS035	0.04	0	TYP68	49	17	-	-	57- - 6831 -	-	-	34	14	0.0
	1		20	338	117	-	-	57- - 6831 -	-	-	234	97	0.0
H04	0.04	0	TYP68	76	63	-	-	8 82- - 73 -	-	-	44	21	0.0
	1		20	524	434	-	-	8 82- - 73 -	-	-	303	145	0.0
Wire													
OS015	0.08	0	TYP68	54	-	-	-	56- - - -	-	-	-	-	0.0
	2		20	372	-	-	-	56- - - -	-	-	-	-	0.0
OS050	0.08	0	TYP68	48	-	-	-	64- - - -	-	-	-	-	0.0
	2		20	331	-	-	-	64- - - -	-	-	-	-	0.0
Flat Products													
H08	0.04	0	TYP68	94	65	-	-	3 91- - 77 -	-	-	48	23	0.0
	1		20	648	448	-	-	3 91- - 77 -	-	-	331	159	0.0
Rod													
OS050	1	0	TYP68	48	16	-	-	65- - 65- -	-	-	34	-	0.0
	25.4		20	331	110	-	-	65- - 65- -	-	-	234	-	0.0
H00	1	6	TYP68	55	40	-	-	4860- - - -	-	-	36	-	0.0
	25.4		20	379	276	-	-	4860- - - -	-	-	248	-	0.0
Wire													
H08	0.08	0	TYP68	130	-	-	-	3 - - - -	-	-	60	22	0.0
	2		20	896	-	-	-	3 - - - -	-	-	414	152	0.0
Tube													
OS025	0.0	0	TYP68	52	20	-	-	55- - 7540 -	-	-	-	-	0.0
	0.0		20	359	138	-	-	55- - 7540 -	-	-	-	-	0.0
Flat Products													
OS070	0.04	0	TYP68	46	14	-	-	65- - 5815 -	-	-	32	13	0.0
	1		20	317	97	-	-	65- - 5815 -	-	-	221	90	0.0
Rod													
H02	1	20	TYP68	70	52	-	-	3080- - - -	-	-	42	22	0.0



25.4	20	483	359	-	-	3080-	-	-	-	-	-	290	152	0.0
Wire														
OS035	0.08	0	TYP68	50	-	-	-	60-	-	-	-	-	34	0.0
2			20	345	-	-	-	60-	-	-	-	-	234	0.0
Flat Products														
OS050	0.04	0	TYP68	47	15	-	-	62-	-	6426	-	-	-	0.0
1			20	324	103	-	-	62-	-	6426	-	-	-	0.0
Wire														
OS025	0.08	0	TYP68	52	-	-	-	58-	-	-	-	-	-	0.0
2			20	359	-	-	-	58-	-	-	-	-	-	0.0
Tube														
OS050	0.0	0	TYP68	47	15	-	-	65-	-	6426	-	-	-	0.0
0.0			20	324	103	-	-	65-	-	6426	-	-	-	0.0
Flat Products														
H10	0.04	0	TYP68	99	65	-	-	3 93-	-	78	-	-	-	0.0
1			20	683	448	-	-	3 93-	-	78	-	-	-	0.0
H01	0.04	0	TYP68	54	40	-	-	4355-	-	54	-	-	36	0.0
1			20	372	276	-	-	4355-	-	54	-	-	248	0.0
OS025	0.04	0	TYP68	51	19	-	-	55-	-	7236	-	-	-	0.0
1			20	352	131	-	-	55-	-	7236	-	-	-	0.0

*Fatigue Strength: 100×10^6 cycles,
unless indicated as [N] X 10^6 .

Physical Properties

	US Customary	Metric
Melting Point - Liquidus	1750 F	954 C
Melting Point - Solidus	1680 F	916 C
Density	0.308 lb/in ³ at 68 F	8.53 gm/cm ³ @ 20 C
Specific Gravity	8.530	8.53
Electrical Resistivity	37 ohms-cmil/ft @ 68 F	6.15 microhm-cm @ 20 C
Electrical Conductivity	28 %IACS @ 68 F	0.164 MegaSiemens/cm @ 20 C
Thermal Conductivity	70 Btu · ft/(hr · ft ² · °F) at 68 F	121.2 W/m · °K at 20 C
Coefficient of Thermal Expansion	$11.10 \cdot 10^{-6}$ per °F (68-572 F)	$20.0 \cdot 10^{-6}$ 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	16000 ksi	110000 MPa
Modulus of Rigidity	6000 ksi	41370 MPa

Tempers Most Commonly Used

Flat Products	
BAR, ROLLED	H02, OS070, OS100
SHEET	H01, H02, OS035, OS050, OS070
STRIP, ROLLED	H01, H02, H04, H06, H08, H10, OS015, OS025, OS035, OS050, OS070, OS100
WIRE, DRAWN	H02, OS050
WIRE, ROLLED	H02, H04, H06, OS035, OS050, OS070, OS100

Other	
SHAPES	M30
TUBE	H58, H80, OS025, OS050
WIRE	H00, H01, H06, H08, OS015, OS025, OS035, OS050



Typical Uses

Architecture

Grillwork

Automotive

Odometer Contacts, Heater Cores, Thermostats, Electrical Connectors, Radiator Cores, Radiator Tube, Radiator Tanks, Tanks

Builders Hardware

Locks, Push Plates, Finish Hardware, Kick Plates, Decorative Hardware, Door Knobs, Hinges

Consumer

Snap, Planters, Fireplace Screens, Etched Articles, Bird Cages, Coinage, Chain Links, Pen/Pencil Inserts and Clips, Syringe Parts, Watch Parts, Costume Jewellery, Buttons, Shells - Electrical Sockets, Lamps

Electrical

Terminal Connectors, Flashlight Shells, Lamp Fixtures, Reflectors, Screw Shells

Fasteners

Pins, Rivets, Fasteners, Grommets, Eyelets, Screws

Industrial

Air Pressure Conveyer Systems, Sound Proofing Equipment, Springs, Chain, Bead Chain, Tubing for Instruments and Machines, Heat Exchangers, Pump Cylinders, Wire Screens, Pumps, Liners, Power Cylinders

Ordnance

Ammunition Cartridge Cases, Mechanical Housings for Lighters, Shells - Mechanical Housings for Ammunition, Ammunition

Other

Stencils, Washers

Plumbing

Fittings, Bathroom Fixtures, Plumbing Accessories, Faucet Escutcheons, Traps, Plumbing Brass Goods

Casting Characteristics

No casting characteristics available for this alloy.