

## C230 (CuZn15)

### Composition

Cu* (%)	Fe (%)	Pb (%)	Zn (%)
84.0-86.0	0.05 max	0.05 max	rem

\*) Cu + sum of named elements min 99.8 %

### Physical Properties

Temper	Melting point (liquidus)	Density	Specific heat cap. at 68 F (20 °C)	Electrical cond. Nom in black	Thermal cond. at 68 F (20 °C)	Mod. of elasticity	Coef. of therm.exp at 68 F (20 °C)
	°F °C						
All	1880	0.316	0.09	37	92	17	10.4
	1027	8.75	0.38	37	159	117	18.7

### Mechanical Properties

At max 0.040"  
(1 mm)

Temper	R <sub>p0.2</sub> Yield strength ksi N/mm <sup>2</sup>	R <sub>m</sub> Tensile strength ksi N/mm <sup>2</sup>	A <sub>50</sub> Elongation 2" %	Hardness for reference HR30T HV	Min bend ratio 90°		Min bend ratio 180°	
					GW	BW	GW	BW
Soft	13 90	39-47 269-324	45		0.0	0.0	0.0	0.0
H02 (1/2H)	49 338	51-61 352-421	18	105	0.0	0.0	0.5	1.5
H04 (H)	62 428	63-72 435-497	7	135	0.0	1.5	2.0	4.0
H06 (EH)	69 476	72-80 497-552	4	150	1.5		2.5	
H08 (SH)	73 504	78-86 538-593	3	160	2.5		4.0	
H10 (ES)	76 524	82-90 566-621	1	170				

Other tempers are available upon request.

Data for information only and not for use as purchase specification.

Yield strength, Elongation and Hardness are typical values for each temper.

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### Alloy attributes

Red Brass, 85 % - 230 alloy with a nominal composition of 85 % copper and 15 % zinc is the second most commonly used brass or copper-zinc alloy, especially for applications requiring excellent resistance to stress-corrosion cracking and dezincification combined with good strength and ductility. The alloy is widely used for deep-drawn articles produced on high speed "eyelet type" presses employing up to 12 sequential cupping and drawing operations without intermediate anneals. Typical 230 alloy items produced on eyelet presses include pen and pencil barrels, lipstick containers, electrical sockets and screw shells as well as various types of eyelets. It is the preferred alloy for fire extinguisher tanks because of its combined ductility, strength and corrosion resistance.

**High ductility**  
**Good electrical and thermal conductivity**  
**Good formability**  
**Good corrosion resistance**

### Typical applications

Architectural metal-work, weather-strip, ornamental trim, electrical sockets and screw shells, eyelets and fasteners, pen and pencil caps and barrels, fire extinguisher tanks, costume jewelry, badges, tags, dials and etched articles, cosmetic containers and rouge boxes, name plates.

### Design limitations

Exposure to high sulfide media should be avoided.

### Applicable specifications

ASTM B36, B694, B88