

Highly resistant to stress corrosion cracking C230 or Red Brass as it is commonly know is a choice for a wide range of applications. Easily buffed or polished this material displays it own natural color well in applications like jewelry, plaques and other decorative or architectural items. Aside from looks this material also has moderate strength and is readily deep drawn or otherwise formed making it great for many industrial applications.

Chemical Composition

Copper¹	84.0-86.0%
Zinc	Remainder
Lead	0.05% Max
Iron	0.05% Max

¹ Copper plus named elements, 99.8% min

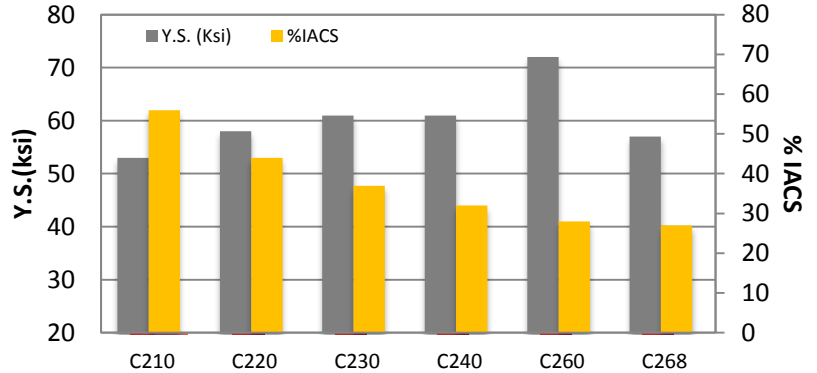


Figure 1: Comparison of Yield Strength and Electrical Conductivity performance of select Hard temper brass materials.

Physical Properties

	English Units	Metric Units
Density	0.316 lb/in ³ @ 68°F	8.75 g/cm ³
Thermal Conductivity	92 BTU-ft/ft ² -hr-°F	161 W/mK
Electrical Resistivity	28 ohm circ mils/ft	4.66 microhm-cm
Electrical Conductivity (annealed)	37 % IACS*	0.215 megamho/cm
Modulus of Elasticity	17,000,000 psi	117 kN/mm ²
Coeff. Of Thermal Expansion		
68-572°F (20-300°C)	10.4 PPM/°F	18.72 PPM/°C

*International Annealed Copper Standard

Mechanical Properties

Temper ¹	Tensile Strength		Yield Strength		% Elongation ²	Typical 90° Bend Formability	
	ksi	N/mm ²	ksi	N/mm ²		GW/BW ³	
Annealed (Soft) ⁴	39-47	270-325	13	90	45	-	-
1/4 Hard	44-54	305-370	35	240	27	-	-
1/2 Hard	51-61	350-420	48	330	14	-	0.3
3/4 Hard	57-67	395-460	55	380	8	0.3	0.8
Hard	63-72	435-495	61	420	7	0.8	1.3
Extra Hard	72-80	495-550	68	470	4	1.3	2.0
Spring	78-86	540-595	72	495	3	1.8	3.0
Extra Spring	82-90	565-620	76	525	2 Min		

¹ Mechanical properties subject to change. All rolled- tempers are accepted or rejected based on Tensile Strength.

² Nominal Values in 2" (51mm) ³ DATA FOR REFERENCE ONLY. R/T = Bend Radius/Material Thickness <0.016" (0.4mm) thick, 11/16 (17.5mm) wide.

⁴ Annealed temper are manufactured to a grain size only, consult mill for additional info.

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