

The attractive golden hue of this metal makes it easy to understand how it received the name Jewelry Bronze. This beautiful brass can be buffed and lacquered to display its natural color, or used as a base for gold plating. Its moderate strength, resistance to corrosion, electrical conductivity and ability to be deep drawn make C226 a great material option for many design engineers working on functional applications including hinges, door knobs, and select electrical connectors.

Chemical Composition

Copper¹	86.0-89.0%
Zinc	Remainder
Lead	0.05% Max
Iron	0.05% Max

¹ Copper plus named elements, 99.8% min

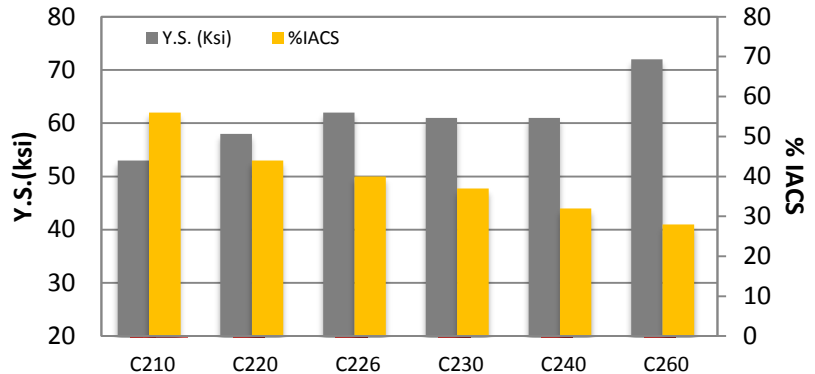


Figure 1: Comparison of Yield Strength and Electrical Conductivity performance of select Hard temper brass materials.

Physical Properties

	English Units	Metric Units
Density	0.317 lb/in ³ @ 68°F	8.78 g/cm ³
Thermal Conductivity	100 BTU-ft/ft ² -hr-°F	173 W/mK
Electrical Resistivity	26 ohm circ mils/ft	4.31 microhm-cm
Electrical Conductivity (annealed)	40% IACS*	0.232 megamho/cm
Modulus of Elasticity	17,000,000 psi	117 kN/mm ²
Coeff. Of Thermal Expansion		
68-572°F (20-300°C)	10.3 PPM/°F	18.54 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	37-45	255-310	15	105	40	-	-
1/4 Hard	42-52	290-360	32	220	28	-	-
1/2 Hard	49-59	340-405	50	345	19	-	-
3/4 Hard	55-65	380-450	58	400	9	0.3	0.8
Hard	60-69	415-475	62	425	6	0.8	1.3
Extra Hard	69-77	475-530	70	485	4	1.3	2.0
Spring	75-83	515-570	76	525	3	1.8	3.0
Extra Spring	78-86	540-595	78	540	3 MAX		

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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