

Yellow Brass, as it is commonly known, is among the highest zinc-containing brasses available to designers. Exhibiting a handsome yellow color associated with brasses this alloy finds use in many of the same applications as other high brasses. C268 offers similar mechanical and physical properties to that of other brasses and is often found in applications requiring an economical copper-based alloy. Designers considering applications requiring a material capable of heavy deep drawing should consider alloy C260.

Chemical Composition

Copper¹	64.0-68.5%
Zinc	Remainder
Lead	0.09% Max
Iron	0.05% Max

¹ Copper plus named elements, 99.7% min

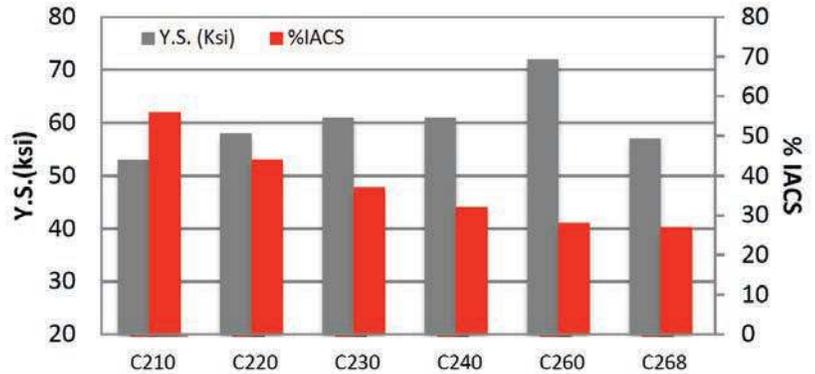


Figure 1: Comparison of Yield Strength and Electrical Conductivity performance of select Hard temper brass materials.

Physical Properties

	English Units	Metric Units
Density	0.306 lb/in ³ @ 68°F	8.47 g/cm ³
Thermal Conductivity	67 BTU-ft/ft ² -hr-°F	116 W/mK
Electrical Resistivity	38.4 ohm circ mils/ft	6.39 microhm-cm
Electrical Conductivity (annealed)	27 % IACS*	0.157 megamho/cm
Modulus of Elasticity	15,000,000 psi	105 kN/mm ²
Coeff. Of Thermal Expansion		
68-572°F (20-300°C)	11.3 PPM/°F	20.3 PPM/°C

*International Annealed Copper Standard

Mechanical Properties

Temper ¹	Tensile Strength		Yield Strength		% Elongation ²	Typical 90° Bend Formability GW/BW ³	
	ksi	N/mm ²	ksi	N/mm ²			
Annealed (Soft) ⁴	44-61	305-420	23	160	52	-	-
1/4 Hard	49-59	340-405	34	235	42	-	-
1/2 Hard	55-65	380-450	44	305	36	0.3	0.5
3/4 Hard	62-72	425-495	53	365	25	0.5	1.0
Hard	68-78	470-540	57	395	19	1.0	1.5
Extra Hard	79-89	545-615	67	460	7	1.5	2.3
Spring	86-95	595-655	71	490	5	2.0	4.5
Extra Spring	90-99	620-685	73	505	5 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.