



C443000 ADMIRALTY BRASS

ASTM B111 ASTM B171 ASTM B395

UNS No.	Copper	Tin	Lead	Iron	Arsenic	Zinc
C44300	70.0-73.0	0.9-1.2	0.07 max	0.06 max	0.02-0.06	remainder

C44300 Admiralty Brass, also known as Arsenical Brass, is a copper alloy composed of tin and zinc. Renowned for its excellent corrosion resistance and superior heat transfer properties, C44300 tubes are widely used in heat exchangers and condensers. Inhibited C44300 has proven effective in fresh, brackish, and saltwater environments, as well as in oil and gas systems, where its durability is highly valued. Compared to C70600 90/10 Copper Nickel, Arsenical C44300 offers a cost-effective solution. Its applications include Bourdon tubes, distiller tubes, evaporator tubes, oil well pump liners, ferrules, and condenser plates. Additionally, C44300 is favored in architectural designs for its attractive brassy finish.

Fabrication Properties

Density @ 68° F	0.308 lb/in ³
Melting Range	1659-1720° F
Hot Formability	Fair
Cold Formability	Excellent
Machinability rating (C36000 = 100)	30
Brazing	Excellent
Soldering	Excellent
Gas-shielded arc welding	Fair
Oxy-acetylene welding	Good
Carbon arc-welding	Not recommended
Coated metal-arc welding	Not recommended
Resistant welding: spot and seam	Good
Resistance welding: butt	Good

Mechanical Properties

Temper	Designation	Tensile, min ksi (MPa)	Yield, max ksi (MPa)
061	Annealed	45 (310)	15 (105)

