



**C44300**

# ADMIRALTY BRASS

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LEADING MANUFACTURER & MASTER DISTRIBUTOR OF BRASS, BRONZE, & COPPER ALLOYS



## Made to order tubes, plates and discs.

This copper based alloy is ideal for heat exchanger tubes. Normally made to order to meet engineering requirements you will find this alloy often times used in oil and gas applications that also require its non corrosive properties.

### Sizes Available From NBM

- TUBES . . . . . made to order
- PLATES (HOT ROLLED) . . . . . cut to size, up to 6" thick
- DISCS . . . . . cut to size, up to 6" thick

### Spec Equivalents

ASTM B-111, B-135, B-171, B-359, B-432, B-543  
ASME SB-111, SB-171, SB-359, SB-543

### Typical Uses

#### Industrial

Evaporator Tubing, Heat Exchanger Tubing, Condenser Tube Plates, Distiller Tubes, Oil Well Pump Liners, Ferrules, Pump Barrel Liners, Condenser Tubes

#### Plumbing

Strainers

### Chemical Composition

	Cu	As	Fe	Pb	Sn <sup>(1)</sup>	Zn
min/max	70.0-73.0	.20-.06	.06	.07	.8-1.2	Rem
nominal	71.0	.04	-	-	1.0	28.0

(1) For tubular products, the minimum Sn content may be .9%.  
NOTE: Cu + (sum of named elements) = 99.6% min.

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[www.nbmmetals.com](http://www.nbmmetals.com)



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**ADMIRALITY BRASS**  
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## Room Temp Tensile & Hardness Data

TEMPER	SECTION SIZE (INCHES)	TENSILE (KSI) MIN	YIELD (KSI) MIN	ELONGATION IN HD MIN	BRINELL (3000 KG)
TUBE	3" O.D.	53	22	65	-

## Physical Properties

Melting Point - Liquidus	1720 F
Melting Point - Solidus	1650 F
Density	0.308 lb/in <sup>3</sup> at 68 F
Specific Gravity	8.53
Electrical Resistivity	41.5 ohms-cmil/ft @ 68 F
Electrical Conductivity	25 %IACS @ 68 F
Thermal Conductivity	64.0 Btu · ft/(hr · ft <sup>2</sup> ·°F) at 68F
Coefficient of Thermal Expansion	11.2 · 10 <sup>-6</sup> per °F (68-572 F)
Modulus of Elasticity in Tension	16000 ksi
Modulus of Rigidity	6000 ksi
Machinability Rating	30%

## C44300 for subsurface rod pump barrels & coupling extensions (special made to order specs)

### Chemical Composition

	Copper	Tin	Lead	Iron	Zinc	Arsenic
max	70.0-73.0	0.9-1.2	0.07	0.06	Rem	0.02-0.06

- Heat treatment is hard drawn and stress relieved
- I.D. surface to be clean and smooth per ASTM B-111
- Wall thickness shall not exceed 10% maximum (aim for 5%)
- Straightness 0.072" maximum in 36"
- O.D. -.000"/+.010" from specified nominal
- I.D. -.010"/+.000" from specified nominal
- Length +.25"/-.00" from specified nominal

### Physical Properties

- Tensile Strength, PSI . . . . . 68,000 min
- Yield Strength, PSI . . . . . 53,000 min
- Elongation, % . . . . . 60% min
- Hardness, HRF . . . . . 60 min



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