

Naval Brass 464 Fact Sheet

Do you need custom fasteners created with Naval Brass 464? Since our inception, Elgin Fastener Group has met every challenge of providing Quality, Timely, Cost-effective solutions for specialty fastener applications. Every product is built to your specifications, using your prints if necessary.

Below are the technical specifications of the Naval Brass 464 Bar Stock we have available to meet your needs.

Uninhibited Naval brass, UNS C46400

Subcategory: Brass; Copper Alloy; Metal; Nonferrous Metal **Key Words:** CDA 464, CZ133, CZ113, ISO CuZn39Sn1, CEN CW719R, UNS C46700

Component	Wt. %
Cu	59 - 62
Fe	Max 0.1
Pb	Max 0.2
Sn	0.5 - 1
Zn	39.25

Material Notes: Fair to excellent corrosion resistance. Excellent hot workability and hot forgeability. Fabricated by blanking, drawing, bending, heading and upsetting, hot forging, pressing. **Applications:** aircraft turnbuckle barrels, balls, bolts, marine hardware, nuts, propeller shafts, rivets, valve stems, condenser plates, welding rod.

Available as flat products, rod, shape, and tube.

Physical Properties	Metric	English	Comments
Density	8.41 g/cc	0.304 lb/in ³	at 20°C (68°F)
Mechanical Properties			
Tensile Strength, Ultimate	379 - 607 MPa	55000 - 88000 psi	
Tensile Strength, Yield	172 - 455 MPa	24900 - 66000 psi	Depending on temper
Elongation at Break	50 %	50 %	in 431.8 mm.
Modulus of Elasticity	100 GPa	14500 ksi	
Poisson's Ratio	0.28	0.28	Calculated
Machinability	30 %	30 %	UNS C36000 (free-cutting brass) = 100%
Shear Modulus	39 GPa	5660 ksi	

Thermal Properties			
CTE, linear 250°C	21.2 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	11.8 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	from 20-300°C (68-570°F)
Thermal Conductivity	116 W/m-K	805 BTU-in/hr-ft ² ·°F	at 20°C (68°F)
Melting Point	885 - 900 °C	1630 - 1650 °F	
Solidus	885 °C	1630 °F	
Liquidus	900 °C	1650 °F	

References are available for this material.