

## Eagle Brass 706 Copper Nickel 10%, 1/2 Hard

Category : Metal , Nonferrous Metal , Copper Alloy

### Material Notes:

706 exhibits excellent corrosion resistance, especially in marine applications. It has a relatively high strength and has resistance at elevated temperatures. The cost is relatively high compared to copper-aluminum and other alloys with similar mechanical properties. Typical uses include brake lines, screw lamp bases, boat hulls, pipe fittings, heat exchanger tubes, and flanges. Information provided by Eagle Brass Company

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Eagle-Brass-706-Copper-Nickel-10-12-Hard.php](http://www.lookpolymers.com/polymer_Eagle-Brass-706-Copper-Nickel-10-12-Hard.php)

Physical Properties	Metric	English	Comments
Density	8.94 g/cc	0.323 lb/in <sup>3</sup>	Annealed

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell 30T	51 - 72	51 - 72	Thickness > 0.020 Inch
Tensile Strength, Ultimate	400 - 496 MPa	58000 - 72000 psi	
Tensile Strength, Yield	379 - 490 MPa	55000 - 71000 psi	0.2% offset
Elongation at Break	2.0 - 9.0 %	2.0 - 9.0 %	in 2 in.
Tensile Modulus	124 GPa	18000 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	17.1 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	9.50 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	
	@Temperature 20.0 - 300 $^{\circ}\text{C}$	@Temperature 68.0 - 572 $^{\circ}\text{F}$	
Thermal Conductivity	45.0 W/m-K	312 BTU-in/hr-ft <sup>2</sup> - $^{\circ}\text{F}$	

Component Elements Properties	Metric	English	Comments
Copper, Cu	88.6 %	88.6 %	
Iron, Fe	1.4 %	1.4 %	
Nickel, Ni	10 %	10 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000198 ohm-cm	0.0000198 ohm-cm	Annealed

## **Contact Songhan Plastic Technology Co.,Ltd.**

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