

## Eagle Brass 110 EPT COPPER, Annealed

Category : Metal , Nonferrous Metal , Copper Alloy

### Material Notes:

Alloy 110, also known as electrolytic tough pitch (ETP) copper, is commonly used in electric current carrying applications. 110 Copper is 99.9% pure copper with an electrical conductivity rating of 100+ % IACS. Conductivity, corrosion resistance, and ductility makes 110 Copper very versatile over a broad range of applications. 110 Copper has a poor machinability rating of 20%. It does, however, have excellent hot and cold forming characteristics. 110 Copper, being a tough pitch copper alloy, is not easily welded or brazed because it suffers from embrittlement when heated in a reducing atmosphere. This occurs because hydrogen reacts with the oxide in the metal to form steam and causes cracking. Oxygen-Free coppers are made for welding operations if needed. 110 Copper can be soldered with good results. C110 Copper has a broad range of uses, including plumbing fittings, electrical components, wave guides, base plates, bus bars, heat exchanger components, blade and ring terminals, cables, power transmission components, automotive spark plug electrodes, resistance welding electrodes, fuses terminals, and high conductivity items for use at raised temperatures. Both hot and cold forming characteristics are excellent and can be used wherever extensive machining is not required. Information provided by Eagle Brass Company

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Eagle-Brass-110-EPT-COPPER-Annealed.php](http://www.lookpolymers.com/polymer_Eagle-Brass-110-EPT-COPPER-Annealed.php)

Physical Properties	Metric	English	Comments
Density	8.91 g/cc	0.322 lb/in <sup>3</sup>	Annealed

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	179 - 262 MPa	26000 - 38000 psi	
Tensile Strength, Yield	41.4 - 89.6 MPa	6000 - 13000 psi	0.2% offset
Elongation at Break	20 - 50 %	20 - 50 %	in 2 in.
Tensile Modulus	117 GPa	17000 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	17.6 $\mu\text{m}/\text{m}\cdot\text{°C}$	9.80 $\mu\text{in}/\text{in}\cdot\text{°F}$	
	@Temperature 20.0 - 300 °C	@Temperature 68.0 - 572 °F	
Thermal Conductivity	390.8 W/m-K	2712 BTU-in/hr-ft <sup>2</sup> -°F	

Component Elements Properties	Metric	English	Comments
Copper, Cu	>= 99.9 %	>= 99.9 %	
Oxygen, O	<= 0.050 %	<= 0.050 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000176 ohm-cm	0.00000176 ohm-cm	Annealed

## Contact Songhan Plastic Technology Co.,Ltd.

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