

ATI Allegheny Ludlum AL 4750™ Electrical Alloy, UNS K94800 or UNS K95000

Category : Metal , Electronic/Magnetic Alloy , Ferrous Metal

Material Notes:

The alloy produces good magnetic properties, wide latitude to control hysteresis loop shape via recrystallization modes. Applications for this grade range from electromechanical relay cores, to very low current holding magnets for natural gas safety valves, to manufacture of magnetic shielding used in multiple-wall shielding to produce high frequency transformer applications - notably in the past in telecommunication applications. AL 4750 alloy is sold in two grades, "Rotor" a fine grained, equalized structure with a cube on face texture for rotating equipment, and "Transformer" a large grained directional, secondarily recrystallized twinned structure ideal for transformers. Information provided by Allegheny Ludlum.

Order this product through the following link:

http://www.lookpolymers.com/polymer_ATI-Allegheny-Ludlum-AL-4750-Electrical-Alloy-UNS-K94800-or-UNS-K95000.php

Physical Properties	Metric	English	Comments
Density	8.17 g/cc	0.295 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	55	55	Tempered
Tensile Strength, Ultimate	503 MPa	73000 psi	Typical Annealed
Tensile Strength, Yield	206 MPa @Strain 0.200 %	29900 psi @Strain 0.200 %	Typical; Annealed
Elongation at Break	38 %	38 %	typical in 2"; Annealed

Thermal Properties	Metric	English	Comments
CTE, linear	8.50 - 9.20 $\mu\text{m}/\text{m}\cdot\text{C}$ @Temperature 30.0 - 350 °C	4.72 - 5.11 $\mu\text{in}/\text{in}\cdot\text{F}$ @Temperature 86.0 - 662 °F	
	9.70 - 10.4 $\mu\text{m}/\text{m}\cdot\text{C}$ @Temperature 30.0 - 450 °C	5.39 - 5.78 $\mu\text{in}/\text{in}\cdot\text{F}$ @Temperature 86.0 - 842 °F	

Component Elements Properties	Metric	English	Comments
Carbon, C	<= 0.010 %	<= 0.010 %	
Chromium, Cr	<= 0.10 %	<= 0.10 %	
Cobalt, Co	<= 0.50 %	<= 0.50 %	
Copper, Cu	<= 0.30 %	<= 0.30 %	

Component Elements Properties	Metric %	English %	Comments
Manganese, Mn	0.45 %	0.45 %	
Molybdenum, Mo	<= 0.30 %	<= 0.30 %	
Nickel, Ni	48.25 %	48.25 %	
Phosphorous, P	<= 0.030 %	<= 0.030 %	
Silicon, Si	0.30 %	0.30 %	
Sulfur, S	<= 0.010 %	<= 0.010 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000500 ohm-cm	0.0000500 ohm-cm	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China