

## ATI Allegheny Ludlum Moly Permalloy Electrical Alloy

Category : Metal , Electronic/Magnetic Alloy , Nonferrous Metal , Nickel Alloy

### Material Notes:

An alloy with exceptionally high magnetic permeability, very low coercive force, very low core losses, and low remnance by magnetic field annealing. The alloy finds application in magnetic shielding where fields much less than the Earth's magnetic filed are required. The highest volume applications using laminations or tape wound cores today are ground fault interrupter and modem transformer cores. The alloy is used as well in a variety of other high performance transformer core applications such as tape recorder heads and audio transformers. Control of the cooling rate during heat treatment and superimposition of various customer bake treatments are used to develop the most suitable magnetic quality for the application. Information provided by Allegheny Ludlum

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ATI-Allegheny-Ludlum-Moly-Permalloy-Electrical-Alloy.php](http://www.lookpolymers.com/polymer_ATI-Allegheny-Ludlum-Moly-Permalloy-Electrical-Alloy.php)

Physical Properties	Metric	English	Comments
Density	8.25 g/cc	0.298 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	80	80	Typical Annealed
Tensile Strength, Ultimate	682 MPa	98900 psi	Typical Annealed
Tensile Strength, Yield	338 MPa @Strain 0.200 %	49000 psi @Strain 0.200 %	Typical; Annealed
Elongation at Break	32 %	32 %	typical in 2"; Annealed

Component Elements Properties	Metric	English	Comments
Aluminum, Al	<= 0.010 %	<= 0.010 %	
Carbon, C	0.015 %	0.015 %	
Chromium, Cr	<= 0.020 %	<= 0.020 %	
Cobalt, Co	<= 0.020 %	<= 0.020 %	
Iron, Fe	14 %	14 %	as balance
Manganese, Mn	0.50 %	0.50 %	
Molybdenum, Mo	4.85 %	4.85 %	
Nickel, Ni	80.2 %	80.2 %	
Phosphorous, P	<= 0.0050 %	<= 0.0050 %	
Silicon, Si	0.30 %	0.30 %	

Component Elements Properties	Metric	English	Comments
Surface S	= 0.0010 %	= 0.0010 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000470 ohm-cm	0.0000470 ohm-cm	

## Contact Songhan Plastic Technology Co.,Ltd.

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