

# MAGNETIC SHIELD CORP.



## Co-NETIC® AA WIRE

### DESCRIPTION

Co-NETIC® is a non-oriented 80% nickel-iron-molybdenum alloy which offers a saturation induction of about 0.8T (8000 G), low coercive forces, and extremely high initial permeability as well as maximum permeability with minimum hysteresis losses.

### SPECIFICATIONS

Co-NETIC® AA Wire complies with A-A-59569 (QQ-B-575). Wire meets military specification MIL-N-14411, Comp 1.

TYPICAL CHEMICAL COMPOSITION (WEIGHT %)				
Ni	Mo	Fe	Mn	Si
78.5 – 80	3.80 – 4.10	Balance	0.60 – 1.10	0.30 – 0.50

DC MAGNETIC PROPERTIES <sup>1</sup>	
Coercivity (Hc)	<1 A/m
Maximum Permeability ( $\mu_{max}$ )	325,000

PHYSICAL PROPERTIES*	
Saturation induction (Bs)	0.8 T
Density	.316 lb/in <sup>3</sup> [8.7 g/cm <sup>3</sup> ]
Curie Temperature	842°F [450°C]
Melting Point	2642°F [1450°C]
Electrical Resistivity	55 $\mu\Omega$ cm [349 ohm circ mil/ft]
Thermal Expansion	$12 \times 10^{-6}/^{\circ}\text{K}$ [ $7 \times 10^{-6}/^{\circ}\text{F}$ ]
Thermal Conductivity	0.32 W/cm K [134 (BTU in)/(ft hr °F)]
Specific Heat	460 J $\times$ Kg <sup>-1</sup> $\times$ °K <sup>-1</sup>

<sup>1</sup>measured on final annealed samples.

\*Note: All product data given in this data sheet are typical values based on the experience of the melt source. They are not part of material specification and do not guarantee particular characteristics.