

MAGNETIC SHIELD CORP.



Co-NETIC® B STRESS ANNEALED SHEET

DESCRIPTION

Co-NETIC® B is a non-oriented 50% nickel-iron alloy which offers a saturation induction of about 1.5T (15000 G), low coercive forces, and medium initial permeability as well as maximum permeability with minimum hysteresis losses.

Co-NETIC® B is suitable for shielding sensitive electronic equipment against static and low frequency magnetic fields.

SPECIFICATIONS

Co-NETIC® B alloy meets ASTM-A-753 Alloy 2, and military specification MIL-N-14411 Composition 3.

TYPICAL CHEMICAL COMPOSITION (WEIGHT %)			
Ni	Fe	Mn	Si
48	Balance	0.5	.35

DC MAGNETIC PROPERTIES ¹	
Coercivity (Hc)	.035 Oe [2.8 A/m]
B (100 Oe)	15,000 G
Maximum Permeability (μ_{max})	$\geq 200,000$

PHYSICAL PROPERTIES*	
Saturation Induction (Bs)	15,000 G [1.5 T]
Density	.295 lb/in ³ [8.2 g/cm ³]
Curie Temperature	842°F [450°C]
Electrical Resistivity	45 $\mu\Omega$ cm
Thermal Expansion	$8 \times 10^{-6} / ^\circ K$
Thermal Conductivity	13 W/ $^\circ K$ m
Specific Heat	500 J \times Kg ⁻¹ \times $^\circ K^{-1}$
Melting Temperature	2597°F [1425°C]

MECHANICAL PROPERTIES*	
Hardness (Hv)	140
Tensile strength (MPa)	500
Yield strength (MPa)	280
Elongation in 2" (%)	35

¹ measured using stamped rings of 0.35 mm [.014"] sheet thickness after perfection annealing.

*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.