Magfield 36

Nickel-Iron Soft-Magnetic Alloy

W.N.: 1.3910
DIN: Ni36
UNS: K93600

Magfield 36

Magfield 36 is a nickel-iron soft-magnetic alloy of good permeability with low hysteresis losses at high frequencies and high resistivity.

Magfield 36 is characterized by: good ductility and toughness.

Applications: electronics, optical benches, clock motor parts, scientific instruments, components for automotive industry, OLED screens, as a passive component in bi-metal compound, pendulum, pole shoes, relays, etc.

1. Chemical composition

Nominal composition, %	C	P	S	Mn	Si	Ni	Fe
min	-	-	-	-	-	35.00	Bal.
max	0.03	0.02	0.02	0.60	0.20	38.00	

2. Mechanical properties

Condition	Yield Strength, $R_{p0.2}$ (MPa)	Tensile Strength, R_m (MPa)	Hardness, HV	Elongation, A (%)
soft, annealed	280	450	140	≥ 30

3. Magnetic properties

Saturation Bs, T	1.20
Coercivity Hc, A/m	≤10.00

Initial permeability $\mu_{0.40}$,mH/m	≥6.00
Maximum permeability μ_{max},mH/m	≥25.00

4. Physical properties

Density, g/cm^3	8.10
Electrical resistivity at 20°C, Ω mm^2/m	0.75
Thermal conductivity at 20°C, W/mk	10.50
Melting point, °C	1450
Curie point, °C	240

Coefficient of thermal expansion, 10^{-6}/K	100°C	1.20
	200°C	2.20
	300°C	5.50
	400°C	8.20
	500°C	9.70

5. Delivery form, dimensions, condition.

Form*	Thickness, mm	Width, mm	Length, mm	Finish
Strip/Coil	0.10-2.50	10.00 - 400.00	-	soft annealed / hard
Sheet	0.50-3.50	5.00 - 400.00	500.00 - 3500.00	soft anneled / hard

*Other dimensions and specifications upon request.

Note: All information enclosed in this datasheet is based on our best knowledge and is given as indicative. Other special requirements are subject to prior discussion and approval of Vojay. Please contact us for any additional information or request.