Manufacturer Supply Special Precision Nickel Alloy Super Permalloy Wire

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Model Number: Permalloy 80
- Minimum Order Quantity: 50
- Price: $25-$40
- Packaging Details: Standard Export Wooden Cases Ex.Gross Weight Under 20kg=Carton Box/Gross Weight over 20 kg=Plywood Box Or as per Request
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 200 tons per month

Product Specification

- Material: NiFe
- Certificate: ISO9001
- Shape: Wire, Strip, Foil, Sheet
- Resistivity: 0.56
- Density: 8.75g/cm3
- Size: Customized
- Standard: GB/ASTM/AISI/ASME
- Condition: Bright, Annealed, Soft
- Application: Industrial Magnet
- Curie Point: 400°C
- HCR: 30
- Feature: High Initial Permeability
- Highlight: **Permalloy 80 Precision Alloy**, **Precision Alloy High Permeability**, **ASTM Permalloy 80**

Our Product Introduction

Product Description

High Permeability Soft Magnetic Alloy

Permalloy 80 is an alloy that is composed of nickel, iron, and molybdenum. It is a highly magnetic material that is widely used as a core material in electrical and electronic equipment. This alloy contains approximately 80% nickel, 15% iron, and 5% molybdenum. Compared to ordinary steel, commercial permalloy alloys have a relative permeability of around 100,000, making them highly effective in magnetic applications.

One of the key advantages of permalloy 80 is its ability to provide maximum magnetic permeabilities and minimal core losses at low field strengths. This means that it is an ideal material for use in applications where magnetic properties need to be maintained even at low magnetic fields. Additionally, permalloy 80 has near-zero magnetostriction and significant anisotropic magnetoresistance, making it a highly versatile material for a wide range of industrial applications.

Another advantage of permalloy 80 is its low coercive force, low hysteresis loss, and low eddy-current losses. These properties make it an excellent choice for use in thin films where variable stresses might otherwise cause a large destructive variation in magnetic properties. Permalloy 80 also offers the benefits of small size and weight in magnetic core and shielding materials, making it ideal for use in a wide range of applications.

Overall, permalloy 80 is a highly effective material for use in electrical and electronic equipment. Its unique combination of magnetic properties makes it an ideal choice for a wide range of industrial applications, from thin films to magnetic core and shielding materials. With its high initial and maximum permeabilities and low coercive force, permalloy 80 is a highly versatile material that offers significant advantages over other magnetic materials.

Applications

High sensitivity and small power transformers, magnetic amplifiers, relays, chokes, magnetic heads for magnetic recording devices, magnetic shields, various tape wound cores, cut cores, and laminated cores used in weak magnetic fields.

Material	C	P	S	Mn	Si	Ni	Cr	Co	Mo	Cu
	Max									
Permalloy80	0.03	0.020	0.020	0.3-0.6	0.15-0.30	79.0-81.0	-	-	4.8-5.2	≤0.2

rial	Shape	Class	Thickness or Diameter mm	Magnetic permeability in 0.08A/m magnetic field intensity μ0.4(mH/m)	Maximum permeability μm(mH/m)	Coercivity(under saturation magnetic induction)Hc/A·m-1
				not less than		no greater than
Permalloy80	Cold rolled strip	I	0.03-0.04	18000(22.5)	80000(100)	3.6
			0.05-0.09	28000(35)	110000(137.5)	2.4
			0.10-0.19	30000(37.5)	150000(187.5)	1.6
			0.20-0.34	40000(50)	180000(225)	1.2
			0.35-1.00	50000(62.5)	250000(312.5)	0.8
			1.10-2.50	40000(50)	150000(187.5)	1.2
		Ⅱ	0.03-0.04	30000(37.5)	110000(137.5)	2.4
			0.05-0.09	40000(50)	140000(175)	1.6
			0.10-0.19	50000(62.5)	180000(225)	1.2
			0.20-0.34	60000(75)	200000(250)	1.0
			0.35	55040(68.8)	260000(325)	0.7
	Hot rolled tape		4.5-20	30000(37.5)	100000(125)	1.6
	Hot forged bar		20-100	30000(37.5)	100000(125)	1.6

Material	Shape	Class	Thickness or Diameter mm	Magnetic permeability in 0.08A/m magnetic field intensity μ0.4(mH/m)	Maximum permeability μm(mH/m)	Coercivity(under saturation magnetic induction)Hc/A·m-1	Saturation magnetic induction Bs/T
				not less than		no greater than	
Permalloy 80	Cold rolled strip	I	0.03-0.04	18000(22.5)	80000(100)	3.6	0.70
			0.05-0.09	28000(35)	110000(137.5)	2.4	0.70
			0.10-0.19	30000(37.5)	150000(187.5)	1.6	0.70
			0.20-0.34	40000(50)	180000(225)	1.2	0.70
			0.35-1.00	50000(62.5)	250000(312.5)	0.8	0.70
			1.10-2.50	40000(50)	150000(187.5)	1.2	0.70
		Ⅱ	0.03-0.04	30000(37.5)	110000(137.5)	2.4	0.70
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			0.10-0.19	50000(62.5)	180000(225)	1.2	0.70
			0.20-0.34	60000(75)	200000(250)	1.0	0.70
			0.35	55040(68.8)	260000(325)	0.7	0.70
	Hot rolled tape		4.5-20	30000(37.5)	100000(125)	1.6	0.70

	Hot forged bar		20-100	30000(37.5)	100000(125)	1.6	0.70






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