Hot Sale Low Expansion Precision Alloy Wire 4J36/32H/Invar/Nilo36/36Ni/Nilos36 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℃
- HCR: 30
- Feature: High Initial Permeability
- Highlight: **Soft Magnetic alloy precision**, **alloy precision High Permeability**, **AISI permalloy 80**

Our Product Introduction

Product Description

High Permeability Soft Magnetic Alloy

Permalloy 80 is a type of alloy that is composed of a mixture of nickel, iron, and molybdenum. This alloy is particularly noteworthy for its soft magnetic properties and its exceptionally high magnetic permeability. Additionally, Permalloy 80 has a low coercivity, which means that it requires very little energy to change its magnetization.

One of the most significant benefits of Permalloy 80 is its near-zero magnetostriction. Magnetostriction is a phenomenon where a material changes shape when it is magnetized. In many cases, this can cause significant problems for industrial applications, particularly when thin films are involved. However, because Permalloy 80 has such a low magnetostriction, it is much less susceptible to changes in shape when it is magnetized.

Another important property of Permalloy 80 is its anisotropic magnetoresistance. This refers to the fact that the electrical resistance of the material changes depending on the direction of the magnetic field that is applied to it. This property makes Permalloy 80 particularly useful in applications where it is important to be able to measure magnetic fields accurately.
Overall, Permalloy 80 is an incredibly useful material for a wide range of industrial applications. Its soft magnetic properties, high magnetic permeability, low coercivity, and low magnetostriction make it an ideal choice for applications where precise control over magnetic properties is essential.

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
			0.05-0.09	40000(50)	140000(175)	1.6	0.70
			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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