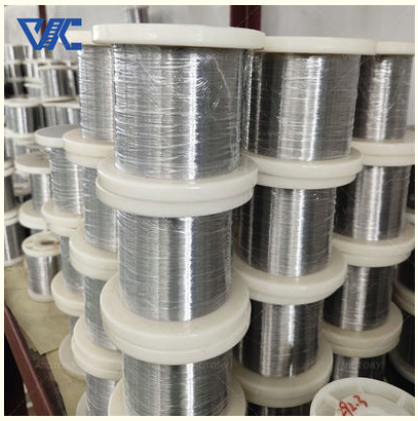
High Temperature Iron Chrome OhmAlloy145 FeCrAl Alloy 0Cr21Al6Nb A1 Heating Resistance Wire

Our Product Introduction

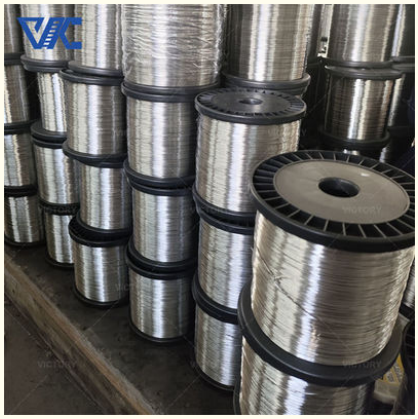
Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO
- Model Number: 0Cr21Al6Nb
- Minimum Order Quantity: 3kgs
- Price: 3-500kgs $3.75-$5.20
- Packaging Details: Put wire into cartons, then put cartons onto pallet
- Delivery Time: 10-25 days
- Payment Terms: L/C, T/T, Paypal, Western Union
- Supply Ability: 50 Tons Per Month



Product Specification

- Material: FeCrAl
- Surface: Bright, Acid White, Black/Oxidized
- Density: 7.1 G/cm3
- Resistivity: 1.45 Ω/m
- Max Working Temperature: 1350℃
- Elongation At Rupture: 12%
- Hardness (H.B.)): 200-260
- Magnetic Properties: Magnetic
- MOQ: 3-20kgs
- Delivery Lead Time: 15-25 Days
- Melting Point Approx (℃): 1510℃
- Tensile Strength (N/mm2)): 650-800 N/mm2
- Highlight: **0Cr21Al6Nb FeCrAl Alloy**, **A1 FeCrAl Alloy**, **A1 Heating Resistance Wire**



More Images

Our Product Introduction

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Product Description

High Temperature Iron Chrome OhmAlloy145 FeCrAl Alloy 0Cr21Al6Nb A1 Heating Resistance Wire

General Introduction:

0Cr21Al6Nb is a type of high-temperature resistant alloy. It is a specific composition of metals that is commonly used in heating elements, industrial furnaces, and other high-temperature applications. This alloy typically contains chromium (Cr), aluminum (Al), niobium (Nb), and possibly other elements in specific proportions to achieve the desired properties for its intended use.

Main Features:

1. High Temperature Resistance: 0Cr21Al6Nb exhibits excellent resistance to high temperatures, making it suitable for use in applications where exposure to elevated temperatures is common.

2. High Electrical Resistance: This alloy has high electrical resistance, which is beneficial for applications requiring electrical heating elements.
3. Good Oxidation Resistance: 0Cr21Al6Nb shows good resistance to oxidation, helping to maintain its properties and performance in high-temperature oxidizing environments.

4. Mechanical Stability at High Temperatures: The addition of niobium provides improved high-temperature strength and stability, reducing the risk of deformation or mechanical failure under heat stress.

5. Creep Resistance: 0Cr21Al6Nb has good creep resistance, allowing it to withstand prolonged exposure to high temperatures and mechanical stress without significant deformation.

Why 0Cr21Al6nb need to add Niobium? What is main advantage?

1. Improved High-Temperature Strength: Niobium helps enhance the high-temperature strength of the alloy, making it more resistant to deformation and mechanical failure at elevated temperatures.

2. Stability at High Temperatures: The addition of niobium contributes to the stability of the alloy's microstructure at high temperatures, ensuring consistent performance over extended periods of use.

3. Creep Resistance: Niobium aids in improving the creep resistance of the alloy, which is crucial for applications where the material is subjected to prolonged exposure to high temperatures and mechanical stress.

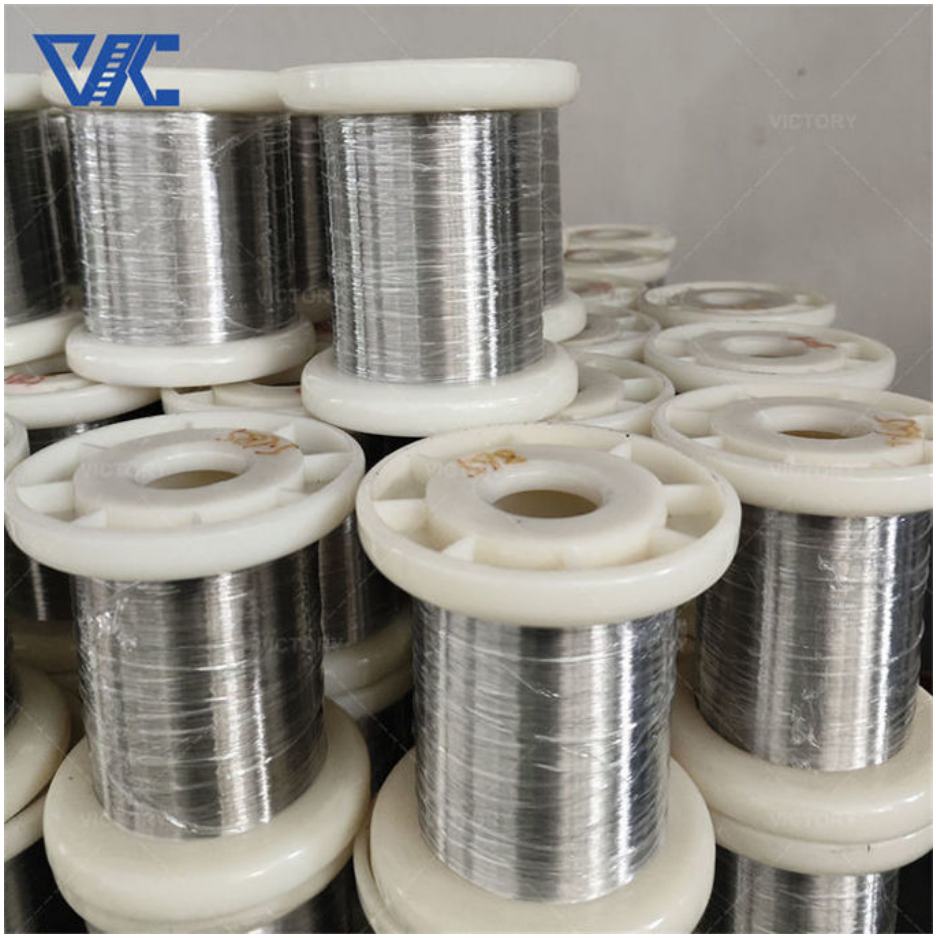
4. Oxidation Resistance: Niobium can also enhance the oxidation resistance of the alloy, helping to protect it from degradation when exposed to high-temperature oxidizing environments.

Overall, the addition of niobium to 0Cr21Al6nb results in an alloy with superior mechanical properties and performance characteristics at high temperatures, making it well-suited for demanding applications in industries such as heating elements, industrial furnaces, and aerospace.

Shape	Size (mm)
Wire	0.025-8.00mm
Rod	8.00-50.00mm
Robbin	(0.05-0.35)*(0.5-6.0)mm
Strip	(0.50-2.50)*(5.00-180.00)mm

Alloy Nomenclature Performance		1Cr13Al4	0Cr25Al5	0Cr21Al6	0Cr23Al5	0Cr21Al4/ 0Cr19Al3	0Cr21Al6Nb	0Cr27Al7Mo2
Main chemical composition	Cr	12.0-15.0	23.0-26.0	19.0-22.0	20.5-23.5	18.0-21.0	21.0-23.0	26.5-27.8
	Al	4.0-6.0	4.5-6.5	5.0-7.0	4.2-5.3	3.0-4.2	5.0-7.0	6.0-7.0
	Rest	opportune	opportune	opportune	opportune	opportune	opportune	opportune
	Fe	Rest	Rest	Rest	Rest	Rest	Rest	Rest
	Others	--	--	--	--	--	Nb 0.5	Mo 1.8-2.2
Max. continuous service temp. of element(°C)		950	1250	1250	1250	1100	1350	1400
Resistivity at 20ºC(μΩ@m)		1.25	1.42	1.42	1.35	1.23	1.45	1.53
Density(g/cm3)		7.4	7.1	7.16	7.25	7.35	7.1	7.1
Thermal conductivity(KJ/m@h@ºC)		52.7	46.1	63.2	60.2	46.9	46.1	
Line expansion coefficient(α×10-6/ºC)		15.4	16	14.7	15	13.5	16	16
Melting point approx.(ºC)		1450	1500	1500	1500	1500	1510	1520

Tensile Strength(N/mm2)	580-680	630-780	630-780	630-780	600-700	650-800	680-830
Elongation at break(%)	>16	>12	>12	>12	>12	>12	>10
Variation of area(%)	65-75	60-75	65-75	65-75	65-75	65-75	65-75
Repeat bending frequency(F/R)	>5	>5	>5	>5	>5	>5	>5
Hardness (H.B.)	200-260	200-260	200-260	200-260	200-260	200-260	200-260
continuous service time(Hours/ºC)	--	≥80/1300	≥80/1300	≥80/1300	≥80/1250	≥50/1350	≥50/1350
Micrographic structure	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite
Magnetic properties	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic



Are you a Manufacturer or Trader?
We are a Manufacturer.

Do you provide free samples?
Yes, we can provide a free sample for testing,buyer should bear all the shipping costs.

What is your payment terms?
T/T,L/C,D/A,D/P,Western Union,MoneyGram,Paypal.

What is the lead time?
Usually sample lead time is 7 days after payment has been confirmed.

Changzhou Victory Technology Co., Ltd

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