

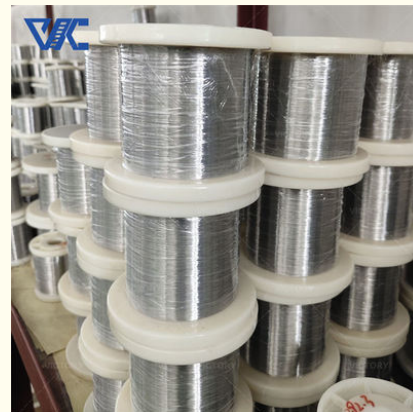


High Temperature Iron Chrome OhmAlloy145 FeCrAl Alloy 0Cr21Al6Nb A1 Heating Resistance Wire

Our Product Introduction

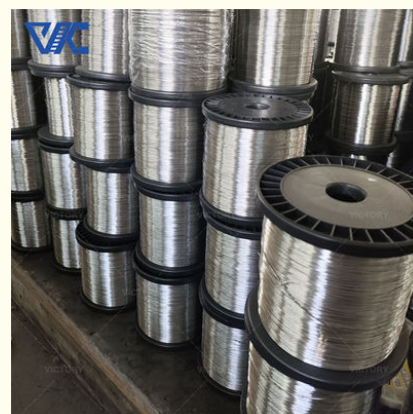
Basic Information

- 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°C
- Elongation At Rupture: 12%
- Hardness (H.B.): 200-260
- Magnetic Properties: Magnetic
- MOQ: 3-20kgs
- Delivery Lead Time: 15-25 Days
- Melting Point Approx (°C): 1510°C
- Tensile Strength (N/mm2): 650-800 N/mm2
- Highlight: 0Cr21Al6Nb FeCrAl Alloy, A1 FeCrAl Alloy, A1 Heating Resistance Wire



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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?

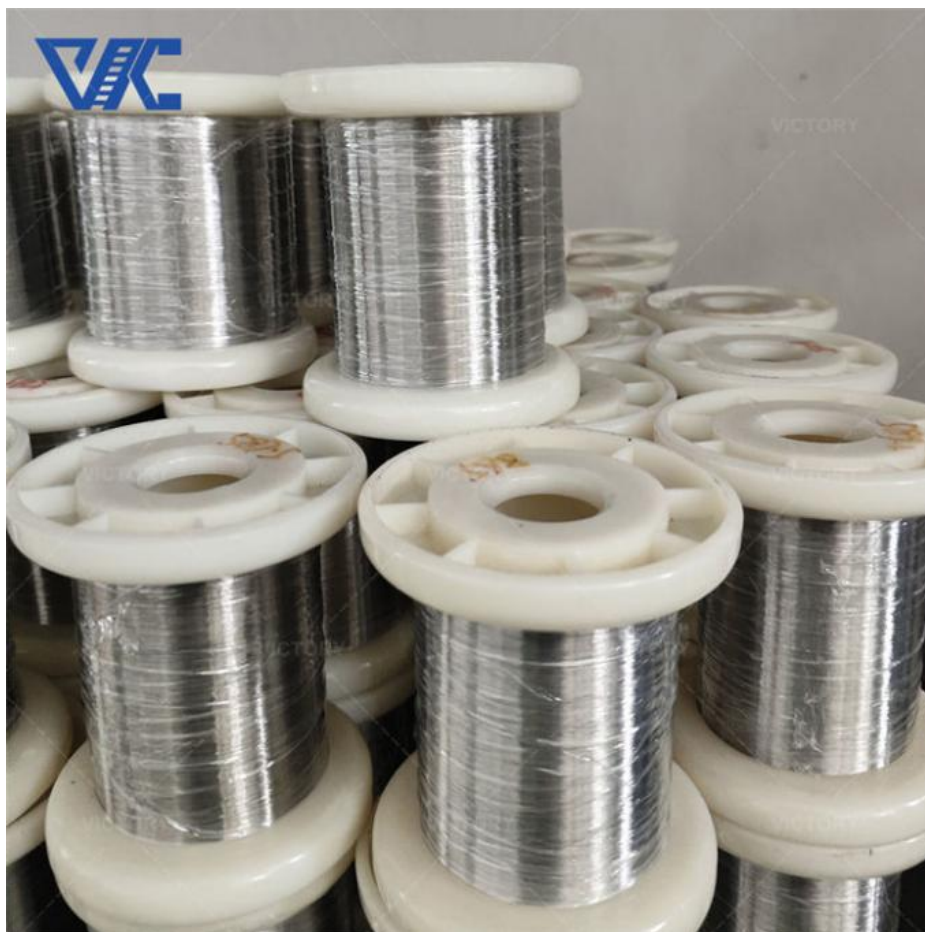
- 1. Improved High-Temperature Strength:** Niobium helps enhance the high-temperature strength of the alloy, making it more resistant to deformation and mechanical failure at elevated temperatures.
- 2. Stability at High Temperatures:** The addition of niobium contributes to the stability of the alloy's 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.

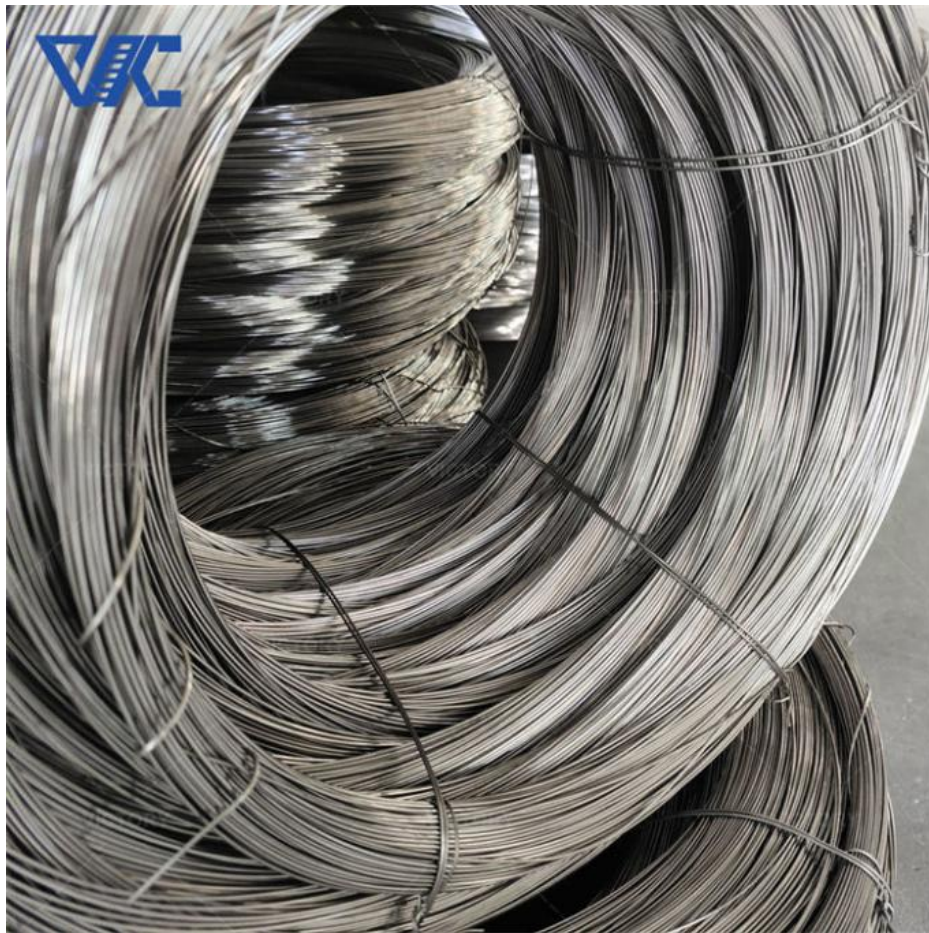
Overall, the addition of niobium to 0Cr21Al6nb results in an alloy with superior mechanical properties and performance characteristics at high temperatures, making it well-suited for demanding applications in industries such as heating elements, industrial furnaces, and aerospace.

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 20°C(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@°C)		52.7	46.1	63.2	60.2	46.9	46.1	
Line expansion coefficient(α×10-6/°C)		15.4	16	14.7	15	13.5	16	16
Melting point approx.(°C)		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/°C)	--	≥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



+8619906119641



victory@dlx-alloy.com



victory-alloy.com

NO.32 West Taihu Road, Xinbei District, Changzhou, Jiangsu