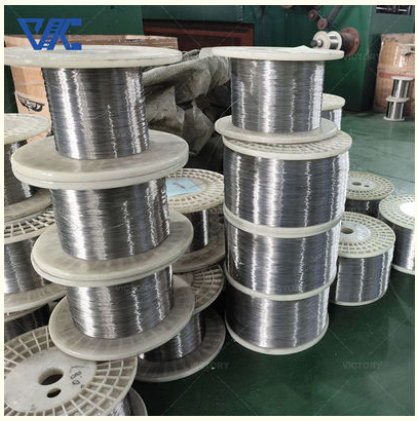
FeCrAl Alloy With Titanium 0Cr23Al5Ti Electric Resistance Round Wire For High Temperature Heating Elements

Our Product Introduction

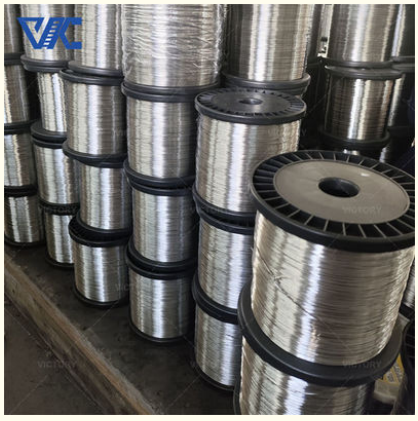
Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO
- Model Number: 0Cr23Al5Ti
- Minimum Order Quantity: 3kgs
- Price: 3-500kgs $4.25-$5.75
- 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: 7.25 G/cm3
- Resistivity: 1.35 ± 0.06 μΩ·m
- Max Working Temperature: 1250°C
- Elongation At Rupture: 12%
- Hardness (H.B.)): 200-260
- Magnetic Properties: Magnetic
- MOQ: 3-10kgs
- Delivery Lead Time: 15-25 Days
- Melting Point Approx (°C): 1500°C
- Tensile Strength (N/mm2)): 650-750 MPa
- Highlight: **High Temperature Heating FeCrAl Alloy**, **Titanium 0Cr23Al5Ti FeCrAl Alloy**, **FeCrAl Alloy Electric Resistance Wire**



More Images

Our Product Introduction

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Product Description

FeCrAl Alloy With Titanium 0Cr23Al5Ti Electric Resistance Round Wire For High-Temperature Heating Elements

General Introduction:

0Cr23Al5Ti is an iron-chromium-aluminum alloy with the addition of titanium. This type of alloy is commonly used in the manufacturing of heating elements due to its high resistance to oxidation and corrosion at high temperatures.

The inclusion of titanium in the alloy composition serves to improve its mechanical properties and oxidation resistance at elevated temperatures compared to alloys without titanium. This makes 0Cr23Al5Ti suitable for use in high-temperature applications where durability and resistance to harsh operating conditions are essential.

Overall, 0Cr23Al5Ti is valued for its ability to maintain its structural integrity and performance at high temperatures, making it a preferred material for heating elements in various industrial and commercial applications.

Main Features of 0Cr23Al5Ti:

1. High Temperature Resistance: 0Cr23Al5Ti exhibits excellent resistance to oxidation and corrosion at high temperatures, making it suitable for use in elevated temperature environments.

2. Mechanical Strength: The addition of titanium enhances the mechanical properties of the alloy, contributing to its durability and structural integrity in demanding conditions.

3. Electrical Resistivity: This alloy has a relatively high electrical resistivity, making it well-suited for applications where electrical heating is required.

Applications of 0Cr23Al5Ti:

1. Heating Elements: 0Cr23Al5Ti is commonly used in the manufacturing of heating elements for electric furnaces, ovens, and industrial heating systems due to its ability to withstand high temperatures and provide consistent heat output.

2. Industrial Furnaces: The alloy is utilized in the construction of industrial furnaces and kilns where resistance to high temperatures and thermal cycling is essential.

3. Household Appliances: It can be found in household appliances such as toasters, electric stoves, and space heaters, where reliable and efficient heating elements are required.

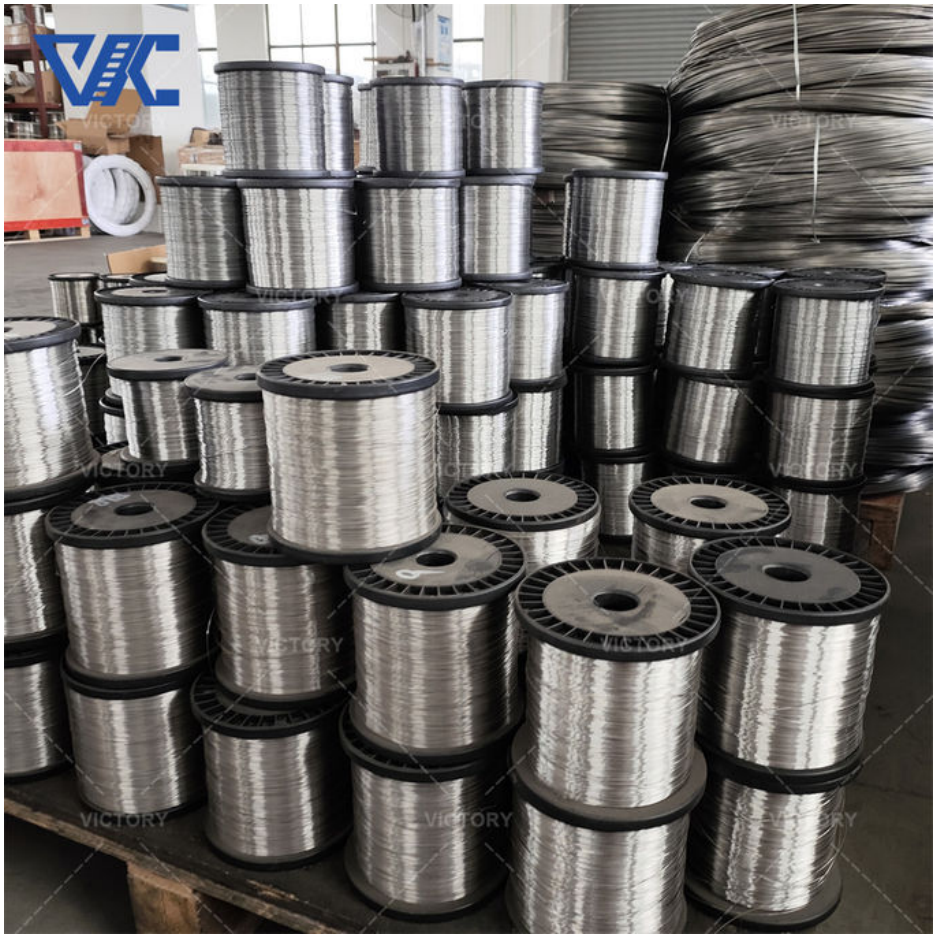
4. Aerospace and Automotive: In certain specialized applications, 0Cr23Al5Ti may be used in aerospace and automotive heating systems that operate at high temperatures.

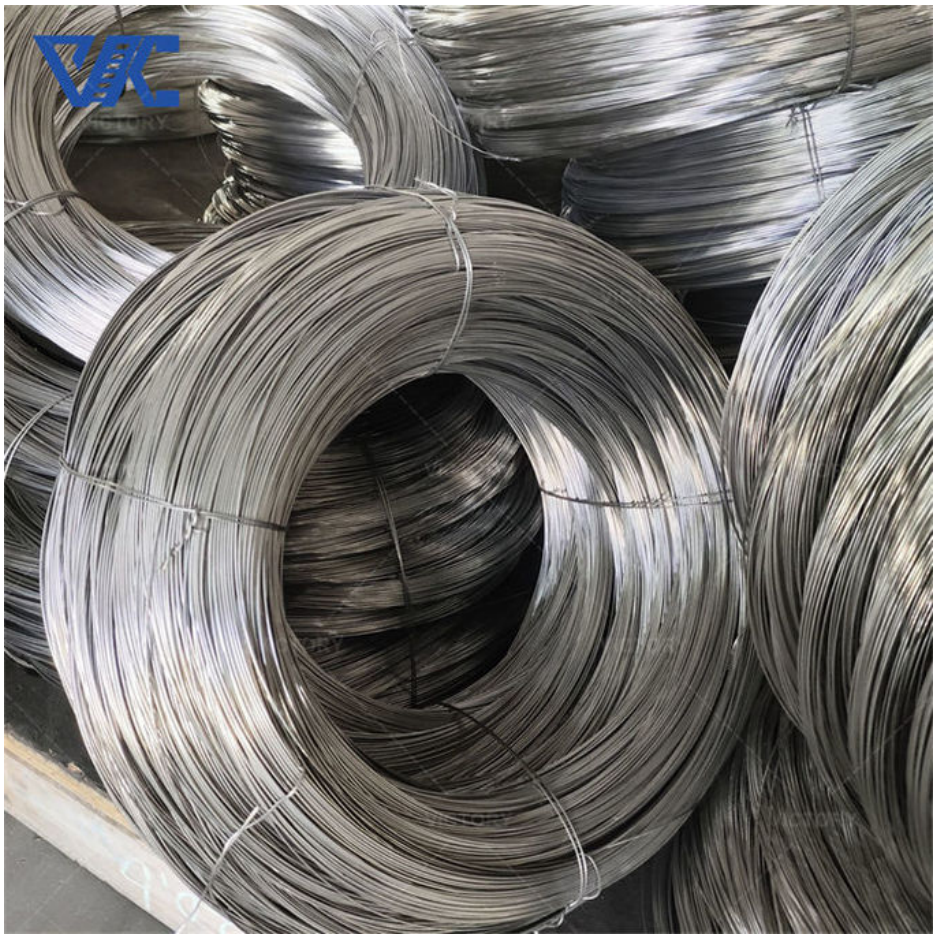
Overall, the features of high temperature resistance, mechanical strength, and electrical resistivity make 0Cr23Al5Ti well-suited for a range of applications where reliable and durable heating elements are essential.

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	0Cr23Al5Ti	0Cr21Al4/0Cr19Al3	0Cr21Al6Nb	0Cr27Al7Mo2
Main chemical composition	Cr	12.0-15.0	23.0-26.0	19.0-22.0	20.5-23.5	22.0-24.0	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	4.2-5.3	3.0-4.2	5.0-7.0	6.0-7.0
	Rest	opportune	opportune	opportune	opportune	opportune	opportune	opportune	opportune
	Fe	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Rest
						0.20-0.60Ti		Nb0.5	Mo1.8-2.2
Max. continuous service temp. of element(℃)		950	1250	1250	1250	1250	1100	1350	1400
Resistivity at 20ºC(μΩ@m)		1.25	1.42	1.42	1.35	1.35	1.23	1.45	1.53
Density(g/cm3)		7.4	7.1	7.16	7.25	7.25	7.35	7.1	7.1
Thermal conductivity(KJ/m@h@ºC)		52.7	46.1	63.2	60.2	0.0147 KJ/m·h·°C	46.9	46.1	

Line expansion coefficient(α×10-6/ºC)	15.4	16	14.7	15	15	13.5	16	16
Melting point approx.(ºC)	1450	1500	1500	1500	1500	1500	1510	1520
Tensile Strength(N/mm2)	580-680	630-780	630-780	630-780	650-750	600-700	650-800	680-830
Elongation at break(%)	>16	>12	>12	16-25	>12	>12	>12	>10
Variation of area(%)	65-75	60-75	65-75	65-75	65-75	65-75	65-75	65-75
Repeat bending frequency(F/R)	>5	>5	>5	>5	>5	>5	>5	>5
Hardness (H.B.)	200-260	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	≥80/1300	≥80/1250	≥50/1350	≥50/1350
Micrographic structure	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite
Magnetic properties	Magnetic	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.

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