14AWG 1.60mm Iron Chrome FeCrAl Alloy 0Cr21Al4 Heating Resistance Wire For Industry Heating Elements

Our Product Introduction

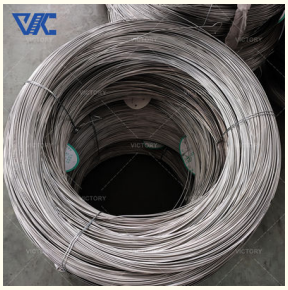
Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO
- Model Number: 0Cr21Al4
- Minimum Order Quantity: 3kgs
- Price: 3-500kgs $2.68-$3.60
- 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: 80 Tons Per Month

Product Specification

- Material: FeCrAl
- Surface: Bright, Acid White, Black/Oxidized
- Density: 7.35 G/cm3
- Resistivity: 1.23 Ω/m
- Max Working Temperature: 1100℃
- Elongation At Rupture: 12%
- Hardness (H.B.)): 200-260
- Magnetic Properties: Magnetic
- MOQ: 3-20kgs
- Delivery Lead Time: 15-25 Days
- Melting Point Approx (℃): 1500℃
- Tensile Strength (N/mm2)): 600-700 N/mm2
- Highlight: **1.60mm FeCrAl Alloy**, **Industry Heating Elements FeCrAl Alloy**, **0Cr21Al4 FeCrAl Alloy Wire**

More Images



Product Description

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General Introduction:

0Cr21Al4 is a type of iron-chromium-aluminum (FeCrAl) alloy with the following composition:

21% Chromium (Cr)
4% Aluminum (Al)
Iron (Fe) and trace amounts of other elements.

This alloy is known for its high resistance to oxidation and corrosion at high temperatures, making it suitable for use in heating elements, industrial furnaces, and various electrical applications. 0Cr21Al4 has good mechanical properties and can withstand high temperatures up to around 1100°C.

Due to its excellent oxidation resistance, this alloy is commonly used in environments where high temperatures and harsh conditions are present. It is also known for its relatively low cost compared to some other high-temperature alloys, making it a popular choice in various industrial applications.

What is 0Cr21Al4 Wire Main Applications and Working Performance?

Heating Elements: 0Cr21Al4 wire is widely used in heating elements for industrial furnaces, ovens, electric heaters, and kilns due to its high temperature resistance and oxidation resistance.

Applications:

1. Household Appliances: It is used in appliances like electric stoves, toasters, and hair dryers where resistance heating is required.

2. Industrial Furnaces: The wire is used in industrial furnaces for processes such as heat treatment, forging, and annealing due to its ability to withstand high temperatures.

3. Infrared Heaters: 0Cr21Al4 wire is used in infrared heaters for various applications including space heating and industrial processes.

4. Resistance Wire: It is used as a resistance wire in electrical components and circuits due to its stable electrical properties.

Working Performance:

1. High Temperature Resistance: 0Cr21Al4 wire can withstand temperatures up to around 1100°C without significant degradation.

2. Oxidation Resistance: The alloy has excellent oxidation resistance, maintaining its properties even at high temperatures in oxidizing atmospheres.

3. Mechanical Strength: It has good mechanical properties, providing durability and reliability in various applications.

4. Corrosion Resistance: The wire exhibits good corrosion resistance, making it suitable for use in harsh environments.

5. Electrical Resistance: 0Cr21Al4 wire has a stable electrical resistance, making it ideal for use in heating elements and electrical circuits.

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.

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