



FeCrAl Alloy 0Cr23Al5 D Electric Resistance Round Wire For Industry Oven Heating Elements

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO
- Model Number: 0Cr23Al5
- 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

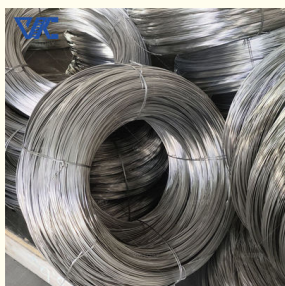


Product Specification

- Material: FeCrAl
- Surface: Bright, Acid White, Black/Oxidized
- Density: 7.25 G/cm3
- Resistivity: 1.35 Ω /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): 630-780 N/mm2
- Highlight: **0Cr23Al5 FeCrAl Alloy,
Electric Resistance FeCrAl Alloy Wire,
Industry Oven Heating Elements FeCrAl Alloy**



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General Introduction:

0Cr23Al5 wire is a type of electrical resistance wire that belongs to the family of iron-chromium-aluminum (FeCrAl) alloys. The designation "0Cr23Al5" indicates the composition of the alloy, with 0% nickel, 23% chromium, and 5% aluminum. This alloy is known for its high electrical resistance, good oxidation resistance at elevated temperatures, and excellent mechanical properties.

0Cr23Al5 wire is commonly used in heating elements for applications requiring high temperatures, such as in electric furnaces, ovens, kilns, and industrial heating processes. It can withstand temperatures up to 1250°C (2282°F) and offers stable performance over a wide temperature range due to its low temperature coefficient of resistance.

Main Features:

- 1. High Electrical Resistance: 0Cr23Al5 wire exhibits high electrical resistance, making it suitable for heating applications where controlled heat generation is required.
- 2. Good Oxidation Resistance: This wire has good oxidation resistance at high temperatures, ensuring longevity and performance in demanding environments.
- 3. High Temperature Capability: 0Cr23Al5 wire can withstand high temperatures up to 1250°C (2282°F), making it ideal for applications requiring heat resistance.
- 4. Low Temperature Coefficient of Resistance: It has a low temperature coefficient of resistance, providing stable performance over a wide temperature range.
- 5. Excellent Mechanical Properties: The wire possesses good mechanical properties, contributing to its durability and reliability in industrial applications.
- 6. Corrosion Resistance: It offers good corrosion resistance, making it suitable for use in various environments.
- 7. Versatile Applications: 0Cr23Al5 wire is used in a variety of applications such as electric furnaces, ovens, kilns, and industrial heating processes due to its balanced properties.

How does the FeCrAl wire works in industry furnace system?

FeCrAl wire works in industrial furnace systems by serving as the heating element that generates heat through electrical resistance. When an electric current passes through the FeCrAl wire, its high electrical resistance causes the wire to heat up. This heat is then transferred to the surrounding environment, allowing the industrial furnace system to reach and maintain high temperatures required for various processes.

In an industrial furnace system, FeCrAl wire is typically wound into coils or placed in a specific configuration to maximize heat generation and distribution. The wire's high oxidation resistance ensures that it can withstand the high temperatures and harsh conditions inside the furnace without degrading quickly.

By controlling the electrical current passing through the FeCrAl wire, the temperature within the furnace system can be regulated and maintained at the desired level for specific industrial processes such as heat treatment, metal melting, glass production, and more.

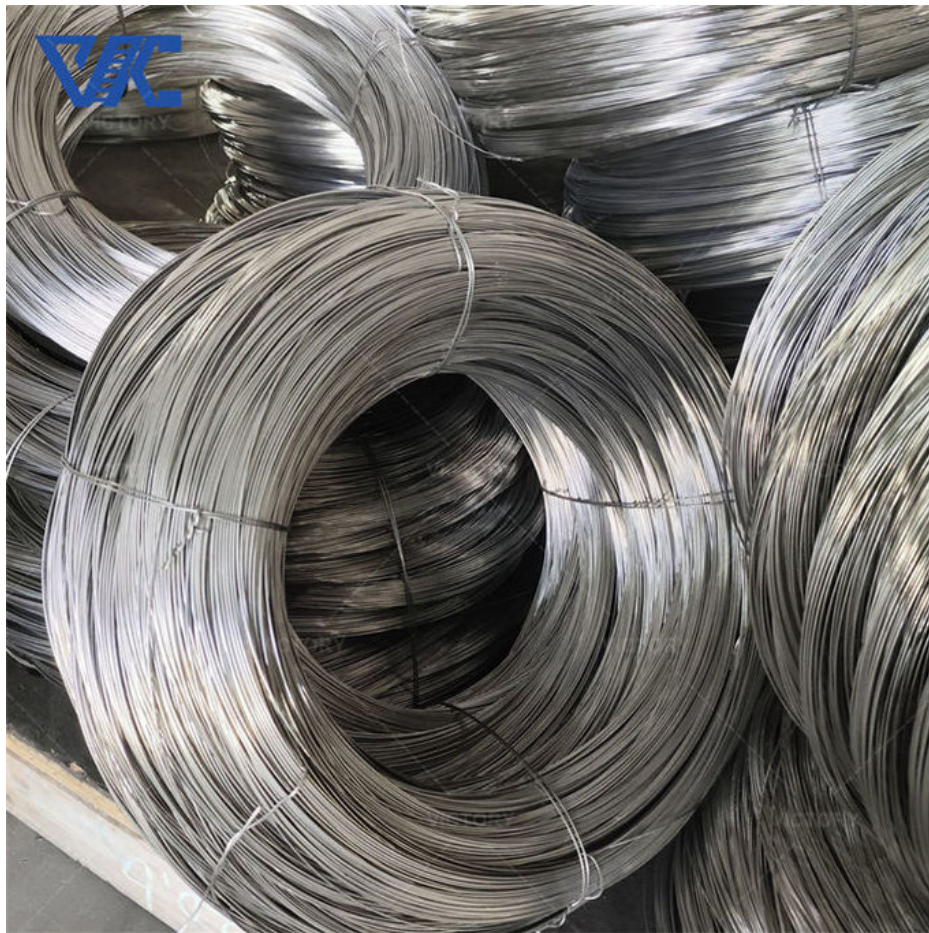
Overall, FeCrAl wire plays a crucial role in industrial furnace systems by providing reliable and efficient heating elements that can operate at high temperatures consistently, contributing to the overall performance and productivity of industrial processes.

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($\mu\Omega@m$)	1.25	1.42	1.42	1.35	1.23	1.45	1.53
Density(g/cm ³)	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($\alpha \times 10^{-6}/^{\circ}C$)	15.4	16	14.7	15	13.5	16	16
Melting point approx.(°C)	1450	1500	1500	1500	1500	1510	1520
Tensile Strength(N/mm ²)	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)	--	$\geq 80/1300$	$\geq 80/1300$	$\geq 80/1300$	$\geq 80/1250$	$\geq 50/1350$	$\geq 50/1350$
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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