



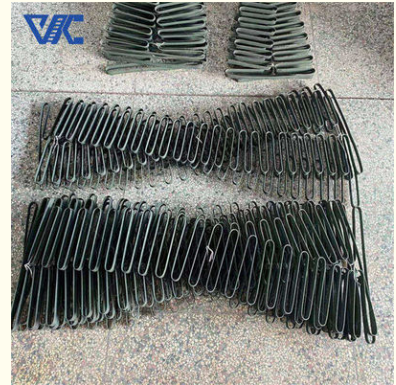
Resistant Heater Electric Furnace 0Cr19a13 Fecral Heating Elements Wire

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO/ROHS
- Model Number: 0Cr19a13
- Minimum Order Quantity: 3kgs
- Price: Negotiable
- 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
- Chemical Composition: Fe Cr Al, Ferro Chrome Aluminium, Cr, Ni, Iron-chromium-aluminum
- Density: 7.25 G/cm³
- Melting Point: 1500-1520°C
- Thermal Conductivity: 14.2 W/m Kelvin
- Tensile Strength: ≥ 690 MPa
- Yield Strength: ≥ 390 MPa
- Elongation: ≥ 30%
- Specification: 0.025-10mm
- Application: High Temperature Heater
- Shape: Strip, wire, ribbon, plate, Wire Strip Round Ribbon
- Highlight: 0Cr19a13 Fecral Heating Elements Wire, Electric Furnace Fecral Heating Elements Wire, Resistant Heater Electric Furnace Wire



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Product Description

Introduction:

0Cr19Al3 heater wire is a high resistance alloy, also known as grate bar alloy. It is composed of iron (Fe), chromium (Cr), aluminum (Al) and small amounts of other elements. The alloy's excellent high temperature resistance and electrical resistance properties make it widely used in thermal equipment and electric furnace heating elements.

0Cr19Al3 heater wire alloy has excellent oxidation resistance and can form a dense oxide protective film in high temperature environments, effectively preventing further oxidation reactions. In addition, it has good mechanical properties and weldability, making it very popular in the manufacture and application of heating elements.

The heater wire is a wire made of 0Cr19Al3 alloy and has a certain degree of elasticity and plasticity. Its cross-sectional shape is usually circular or rectangular, and different sizes and lengths can be customized according to specific needs.

Parameter:**Chemical composition:**

Iron (Fe): balance
Chromium (Cr): 18.0-21.0%
Aluminum (Al): 2.7-3.3%
Copper (Cu): Max. 0.5%
Manganese (Mn): maximum 0.7%

Physical properties:

Density: 7.25 g/cm³
Melting point: 1500-1520°C
Linear expansion coefficient: $15.4 \times 10^{-6}/^{\circ}\text{C}$ (20-1000°C)
Resistivity: 1.09 $\mu\Omega\cdot\text{m}$ (20°C)

Mechanical behavior:

Tensile strength: ≥ 690 MPa
Yield strength: ≥ 390 MPa
Elongation: $\geq 30\%$

item	value
Place of Origin	Jiangsu,China
Type	Fe-Cr-Aluminum Ribbon
Application	Industry Furnace
Conductor Material	ferro alloy
Certificate	ISO9001
Thermal conductivity:	15 W/(m.K) (20°C)
Executive standard	GB/T1234-2012
Dimensions	User's Demand
Size	0.56-5mm
shape	shaped strip
width	6-50mm
Packing	Pallet
highest temperature	1400°C
melting point	1520°C

Alloy Nomenclature Performance		1Cr13A L4	0Cr25A l5	0Cr21AL 6	0Cr23Al5	0Cr2 1Al4	0Cr21 Al6Nb	0Cr27A l7Mo2
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
	Re	opportune	opportune	opportune	opportune	opportune	opportune	opportune
	Fe	Rest	Rest	Rest	Rest	Rest	Rest	Rest
							Nb0.5	Mo1.8-2.2
Max. continuous service temp. of element(°C)		950	1250	1250	1250	1100	1350	1400
Resistivity at 20°C($\mu\Omega\cdot\text{m}$)		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	--

Coefficient of lines expansion($\alpha \times 10^{-6}/^{\circ}\text{C}$)	15.4	16	14.7	15	13.5	16	16
Melting point approx.($^{\circ}\text{C}$)	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 rupture(%)	>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/ $^{\circ}\text{C}$)	--	$\geq 80/1300$	$\geq 80/1300$	$\geq 80/1300$	$\geq 80/1250$	$\geq 50/1350$	$\geq 50/1350$
Micrographic structure	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite
Magnetic properties	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic

Characteristic:

High temperature resistance: 0Cr19Al3 furnace bar can maintain stable performance in high temperature environments.

Anti-oxidation performance: Form a dense oxide protective film to effectively prevent further oxidation of materials.

Mechanical properties: Has certain elasticity and plasticity.

Resistance performance: Provide stable resistance characteristics.

Advantage:

High stability: able to work stably for a long time in high temperature environments.

Good anti-oxidation performance: It can effectively resist the impact of oxidation on material properties.

Easy to process and weld: has good plasticity and weldability.

Specific applications:

Furnace Heating Coil: Heating element used in industrial electric furnaces.

Hot air stove heating element: Heating element used in hot air stoves to provide high-temperature air.

Industrial oven: used in industrial heating and baking equipment.

Electric Heater: Heating element used in appliances and industrial equipment.

Heat treatment equipment: Heating elements used in metal heat treatment processes.



Q&A:

What is the maximum working temperature of 0Cr19Al3 heater wire?

The maximum working temperature of 0Cr19Al3 heater wire is generally around 1200°C.

What is the difference between 0Cr19Al3 heater wire and other high resistance alloys?

0Cr19Al3 heater wire has higher oxidation resistance and mechanical properties than other high-resistance alloys.

What are the processing methods of 0Cr19Al3 heater wire?

0Cr19Al3 heater wire can be processed by cold drawing, cold rolling and hot rolling.



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