

# 220v 800w Resistance Wire Heating Element Coil Wire 0Cr15Al5 Wire For **Heating Element**

# **Basic Information**

•	Place of Origin:	China
•	Brand Name:	Victory
•	Certification:	ISO/ROHS
•	Model Number:	0Cr15Al5

- Minimum Order Quantity: 3kgs
- Price: Negotiable Put wire into cartons, then put cartons onto
- Packaging Details:
- Delivery Time:
- Payment Terms:
- Supply Ability:



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## **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°C
Thermal Conductivity:	13-15 W/m Kelvin
<ul> <li>Tensile Strength:</li> </ul>	600-800 MPa
• Yield Strength:	280-450 MPa
<ul> <li>Elongation:</li> </ul>	10-25%
<ul> <li>Specification:</li> </ul>	0.025-10mm
<ul> <li>Application:</li> </ul>	High Temperature Heater
• Shape:	Strip,wire,ribbon,plate,Wire Strip Round Ribbon
Highlight:	220v Resistance Wire Heating Element,

pallet

10-25 days

80 Tons Per Month

L/C, T/T, Paypal, Western Union

220v Resistance Wire Heating Element, 800w Resistance Wire Heating Element



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## Introduction:

0Cr15Al5 is a high resistance alloy, also known asheater wire alloy. Its main components include iron (Fe), chromium (Cr), aluminum (Al) and small amounts of other elements. This alloy has excellent high temperature resistance and electrical resistance properties and is therefore widely used in thermal equipment and electric furnace heating elements. 0Cr15Al5 alloy has good oxidation resistance and can form a dense oxide protective film in high temperature environments, thus effectively preventing further oxidation of the material. This alloy also has good mechanical properties and weldability,

The heater wire is a wire made of 0Cr15Al5 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 application requirements.

0Cr15Al5 heater wire is widely used in industrial heating fields, such as electric furnace heating coils, hot blast furnace heating elements, industrial ovens, electric heaters, heat treatment equipment, etc. Due to its excellent antioxidant properties and resistance characteristics, 0Cr15Al5 heater wire is able to work stably in high temperature environments and provide uniform heating effects.

## **Parameter:**

## Chemical composition:

Chromium (Cr): approximately 15% by mass

Aluminum (AI): approximately 5% by mass

Other elements: mainly iron (Fe) and impurity elements, such as manganese (Mn), silicon (Si), etc.

#### Physical properties:

Density: approximately 7.25 g/cm3

Melting point: approximately 1500 degrees Celsius Thermal Conductivity: Approximately 13-15 Watts/meter Kelvin (around room temperature) Linear expansion coefficient: approximately 13×10^-6/degrees Celsius

#### Mechanical behavior:

Tensile strength: about 600-800 MPa Yield strength: about 280-450 MPa Elongation: approximately 10-25% (at room temperature)

item	value
Place of Origin	Jiangsu,China
Туре	Fe-Cr-Aluminum Ribbon
Application	Industry Furnace
Conductor Material	ferro alloy
Certificate	ISO9001
Thermal conductivity:	15 W/(m.K) (20ºC)
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	1520ºC

Alloy Nomenclature Performance		1Cr13A L4	0Cr25A I5	0Cr21AL 6	0Cr23Al5	0Cr2 1Al4	0Cr21 Al6Nb	0Cr27A I7Mo2
	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
	AI	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
Main Chemical	R e	opportu ne	opportu ne	opportun e	opportun e	oppo rtune	opport une	opportu ne
composition	F e	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 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·⁰C)	52.7	46.1	63.2	60.2	46.9	46.1	
Coefficient of lines expansion(α×10-6/ <sup>o</sup> C)	15.4	16	14.7	15	13.5	16	16
Melting point approx.( <sup>⁰</sup> 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 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/ ºC)		≥80/13 00	≥80/130 0	≥80/1300	≥80/ 1250	≥50/1 350	≥50/13 50
Micrographic structure	Ferrite	Ferrite	Ferrite	Ferrite	Ferrit e	Ferrite	Ferrite
Magnetic properties	Magneti c	Magnet ic	Magneti c	Magnetic	Mag netic	Magn etic	Magnet ic

#### **Characteristic:**

High temperature resistance: 0Cr15Al5 furnace bar can maintain stable performance in high temperature environments. Excellent antioxidant properties: Form a dense oxide protective film to effectively prevent further oxidation of materials. Good mechanical properties: 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 0Cr15Al5heater wire? The maximum working temperature of 0Cr15Al5 furnace bar is generally around 1100°C.

What is the difference between 0Cr15Al5heater wire and other high resistance alloys? 0Cr15Al5 heater wire has better oxidation resistance and mechanical properties than other high-resistance alloys.

