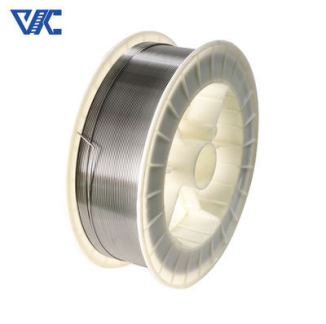
Inconel MIG TIG Welding Wire ERNiCrMo-3 ERNiCr-3 ERNiCrMo-4 Welding Wire

Our Product Introduction

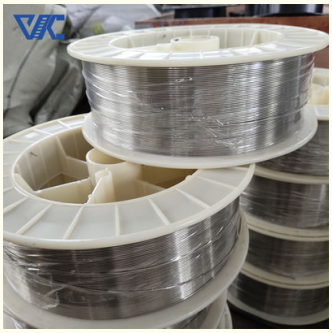
Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: ERNiCrMo-3,ERNiCrMo-4,ERNiCrMo-13,ERNiCrFe-7,ERNiCr-3
- Minimum Order Quantity: 15
- Packaging Details: Spool package with Carton box, Coil package with polybag
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

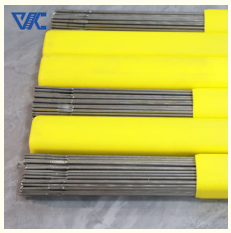


Product Specification

- Material: Ni, Mo, Cr
- Elongation: ≥22 %
- Density: 8.60 G/cm3
- Tensile Strength Rm N/mm²: ≥600
- Yieldstrength R P0. 2 N/mm²: ≥360
- Melting Point: 1310-1360°C
- Certificates: AWS A5.14 / ASME SFA A5.14
- Highlight: **ERNiCrMo-4 Inconel Welding Wire**, **ERNiCrMo-3 Inconel Welding Wire**, **Inconel MIG TIG Welding Wire**



More Images



Our Product Introduction

Product Description

Standard Welding Nickel Alloy Incoloy 925 926 825 800 Wire Per Kg Nickel Wire

ERNiCrMo-3 is a nickel-based alloy welding wire with a chemical composition denoted as NiCr22MoNb. It exhibits excellent welding process performance, aesthetically pleasing weld seam formation, and the deposited metal showcases superior comprehensive mechanical properties. This welding wire is suitable for dissimilar metal welding and corrosion-resistant cladding on material surfaces. It demonstrates exceptional mechanical performance at both high and ultra-low temperatures, along with resistance to strong corrosion in a wide range of oxidizing and reducing media, stress corrosion cracking, pitting, and crevice corrosion.

The welding area must be meticulously cleaned to remove surface impurities like oil, rust, and moisture.

When welding, utilize low wire energy and consider employing lower interpass temperatures.

Ensure the purity of the argon gas used is above 99.99% and appropriately control the gas flow rate. Typically, with welding currents ranging from 100-200A, the gas flow rate should be around 10-15L/min.

Adequate wind protection measures are necessary during welding to prevent the detrimental impact of wind on shielding gas, which could lead to poor gas protection and result in weld porosity.

Proper selection of nozzles and control of the correct extension length of the tungsten electrode are crucial during welding operations.

Chemical Properties

C	Si	Mn	Cr	P	Ni
≤0.01	≤0.2	≤0.5	22.0-24.0	≤0.015	Rem
Al	Mo	Fe	Cu	S	Co
0.10-0.40	15.0-16.50	≤0.5	≤0.1	<0.01	<0.20

Typical Welding Parameters

Diameter		Process	Volt	Amps (flat)	Amps (V/OH)
inch	(mm)				
0.035	0.9	GMAW	26-29	150-190	Spray Transfer 100% Argo
0.045	1.2	GMAW	28-32	180-220	Spray Transfer 100% Argo
1/16	1.6	GMAW	29-33	200-250	Spray Transfer 100% Argo
1/16	1.6	GTAW	14-18	90-130	100% Argon
3/32	2.4	GTAW	15-20	120-175	100% Argon
1/8	3.17	GTAW	15-20	150-220	100% Argon

Tensile Strength	109 Ksi	790 MPA
Yield Strength	68 Ksi	470 MPA
Elongation	40-45%	
Density g/cm3	8.60 g/cm3	
Melting Point ℃	1300-1360℃	
Coefficient of Expansion. 21-93 Co, μm/m * Co	11.90	

Nickel-based alloy welding wires exhibit excellent resistance to reactive gases, harsh environments, and corrosive reducing acid media. They also possess high strength, good ductility, and the capability for cold and hot deformation, as well as weldability.

Consequently, they find extensive applications in industries such as petrochemicals, metallurgy, nuclear energy, marine development, aerospace, and aviation. These alloys are utilized to address engineering corrosion challenges that general stainless steel and other metals or non-metal materials cannot effectively tackle, making them crucial corrosion-resistant materials.

Nickel-based alloys are characterized by nickel serving as the base metal with the inclusion of alloying elements, offering corrosion resistance in specific environments. When classified based on their chemical composition, these alloys primarily include nickel, nickel-copper alloys, nickel-molybdenum (nickel-molybdenum-iron) alloys, nickel-chromium (nickel-chromium-iron) alloys, nickel-chromium-molybdenum alloys (comprising nickel-chromium-molybdenum and nickel-chromium-molybdenum-copper alloys), and nickel-iron-chromium (iron-nickel-based) alloys.

Pure nickel welding wire ERNi-1 is employed for welding nickel alloys 200 and 201, as well as nickel-plated steel sheets; welding dissimilar materials such as steel and nickel; and surface cladding of steel. Nickel-copper welding wire ERNiCu-7 is utilized for welding Monel 400 alloy itself; welding Monel 400 alloy with steel; and surface cladding of steel.

Item	ERNiCrMo-3	ERNiCrMo-4	ERNiCrMo-13	ERNiCrFe-7	ERNiCr-3	ERNiCu-7	ERCuNi
C	0.1	0.02	0.01	0.04	0.1	0.15	0.03
Mn	0.05	1	0.5	1	2.5-3.5	4	0.5-1.0
Fe	5	4-7	1.5	7-11	3	2.5	0.65
P	0.02	0.04	0.015	0.02	0.03	0.02	0.01
S	0.015	0.03	0.005	0.015	0.015	0.015	0.01
Si	0.05	0.08	0.1	0.5	0.5	1.25	0.15
Cu	0.5	0.5	N/A	0.3	0.5	rest	rest
Ni	≥58	rest	rest	rest	≥67	62-69	30-32
Co	N/A	2.5	0.3	N/A	N/A	N/A	N/A
Al	0.4	N/A	0.1-0.4	1.1	N/A	1.25	0.15
Ti	0.4	N/A	N/A	1	0.75	1.5-3	0.5
Cr	20-23	14.5-16.5	22-24	28.5-31	18.0-22.0	N/A	N/A
Nb+Ta	3.5-4.15	N/A	1.8-2.5	0.01	2.0-3.0	N/A	N/A
Mo	8.0-10	15-17	15-16	0.5	N/A	N/A	N/A
V	N/A	0.35	N/A	N/A	N/A	N/A	N/A
W	N/A	3.-4.5	N/A	N/A	N/A	N/A	N/A
Rest	≤0.50	≤0.50	≤0.50	≤0.50	≤0.50	≤0.50	≤0.50

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