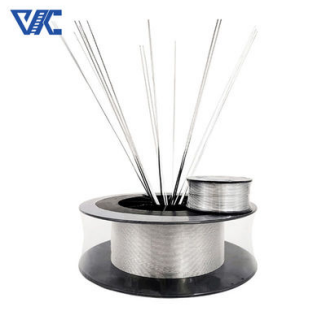
ASTM F1684 Iron 4J36 UNS K93600 Invar 36 Nickel Alloy Spring Wire / Welding Rods

Our Product Introduction

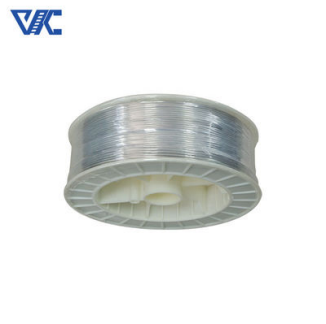
Basic Information

- 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: **UNS K93600 Welding Rods**, **Invar 36 Nickel Alloy Spring Wire**



More Images

Our Product Introduction

Product Description

Welding wire is an indispensable key element in the welding process. They play an important role in filling the weld seam and forming the welding connection. There are many types of welding wires to choose from, such as ERNiCrMo-3, ERNiCrFe-7, ERNiCu-7, etc. Each welding wire has its own unique characteristics and application areas.
These welding wires are designed to meet different welding needs. They have excellent corrosion resistance, high temperature strength and oxidation resistance, and can adapt to various complex environments and materials. By choosing the right welding wire, welding operators can achieve ideal welding results, including improvements in strength, reliability and durability.

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	

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