

Nickel-Chromium-Molybdenum Alloy Welding Wire

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Characteristics:

1. Excelent corrosion resistance in oxidizing as well as reducing media in a wide variety of chemical process environments.
2. Excellent resistance to stress corrosion cracking, pitting and crevice corrosion.
3. Q2 Lot®-Certificate shows the actual deposit composition and can be investigated online.

Application:

1. A nickel based alloy with chromium, molybdenum and tungsten as the principal alloying elements
2. Used for cladding overlay as well as thermal spray applications

Power polarity:DC-

Chemical composition.



Item	C	Mn	Fe	P	S	Si	Cu
AWS Standard	0.015max	0.50max	2.0-6.0	0.02max	0.010max	0.08max	0.50max
Item	Ni	Co	Cr	Mo	V	W	Other
AWS Standard	Remainder	2.50max	20.0-22.5	12.5-14.5	2.5-3.5	2.5-3.5	0.50max

Welding Requirements.

1. Before welding: thoroughly clean the impurities on the weldment and welding wire surface, and polish the groove to make it bright.
2. When you start welding: decide whether to use tungsten arc welding or consumable arc welding. Make sure to provide enough gas. Adjust the current, voltage, and welding speed according to the thickness of the part. Don't let the weld be overheated.
3. After welding: clean slag and spatter, check the appearance, and perform non-destructive testing and heat treatment as needed.

Characteristics:

AWS A 5.14.ERNiCrMo-15 is an INCONEL625 filler metal with aging strengthening capability. After post-weld heat treatment, AWS A 5.14.ERNiCrMo-15 has the same excellent corrosion resistance as INCONEL625 filler metal, and has higher strength and hardness. At the same time, this welding wire can be used for metal arc welding and tungsten arc welding to obtain strong and hard welds.

Application:

1. In the chemical industry: used in strong acid equipment and seawater desalination equipment, with super corrosion resistance, to ensure long-term operation of components;
2. In energy and power: it is a key welding material for nuclear power plants and thermal power plants, dealing with high temperature and high pressure, ensuring the safety and stability of facilities;
3. In aerospace: it empowers the welding of engine components, helps them withstand extreme environments, and escorts flights.

Power polarity:DC-

Chemical composition.

Item	Ni+Co	C	Mn	Fe	S	Al
AWS Standard	55.0-59.0	0.03max	0.35max	Bal	0.01max	0.30max
Item	Ti	Cr	Nb+Ta	Mo	P	Other
AWS Standard	1.0-1.7	19.0-22.5	2.75-4.00	7.0-9.5	0.015max	0.50max



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	300 - 500MPa	700 - 900MPa	-

Welding Requirements.

1. Before welding, the weldment must be cleaned of rust, oil, moisture, etc.
2. During welding, select the appropriate welding method, adjust the current and voltage, control the interpass temperature and welding speed, use the protective gas well, and prevent oxidation and cracks.
3. Short arc is preferred, and the arc length should be controlled within 1mm~3mm.

Characteristics:

1. Excellent composition: rich in nickel, chromium, molybdenum, etc. Nickel provides toughness and corrosion resistance, chromium helps to resist oxidation and stabilize high temperature, and molybdenum resists pitting and crevice corrosion, which synergistically improves the overall performance.
2. Excellent performance: good mechanical properties, strong tensile strength (700-900MPa), stable yield strength (300-500MPa), good low-temperature toughness; strong corrosion resistance, resistance to acid, seawater and mixed media corrosion.
3. Welding-friendly: good operating experience, stable arc, less spatter; excellent compatibility, suitable for a variety of nickel-based alloys and stainless steels, and excellent performance in dissimilar welding.

Application:

1. Suitable for welding nickel-chromium-molybdenum alloy UNS N06002 and UNS NO8120 alloy.
2. Tungsten inert gas welding, metal arc welding and plasma arc welding can be used.

Power polarity:DC-

Chemical composition.

Item	C	Si	Mn	S	P	Ni
AWS Standard	0.05~0.15	≤1.0	≤1.0	≤0.03	≤0.04	Bal
Item	Cr	Mo	W	Fe	Co	Cu
AWS Standard	20.5~23.0	8.0~10.0	0.20~1.0	17.0~20.0	0.5~2.5	≤0.5



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	-	≥660	-

Welding Requirements.

1. Before welding, the weldment must be cleaned of rust, oil, moisture, etc.
2. During welding, the interpass temperature should be controlled to ≤100°C.
3. Short arc is preferred, and the arc length should be controlled within 1mm~3mm.

Characteristics:

AWS A5.14 ERNiCrMo - 4 Main components are nickel (Ni), chromium (Cr), and molybdenum (Mo). High nickel content gives good toughness and corrosion resistance. Chromium is about 14 - 17%, forming an oxide film to enhance oxidation resistance. Molybdenum is 14 - 17%, effectively resisting pitting and crevice corrosion.

Application:

1. Suitable for tungsten inert gas shielded welding and metal arc welding. It can weld nickel-chromium-molybdenum alloys such as INCONEL C276, and can also be used for steel surface cladding.
2. Excellent corrosion resistance in a variety of corrosive media, especially outstanding resistance to pitting and crevice corrosion.
3. Can be used for welding dissimilar materials, such as welding INCONEL C276 with nickel alloys, stainless steel, and low alloy steel.

Power polarity:DC-

Chemical composition.

Item	Ni^a	C	Mn	Fe	p	S	Si
AWS Standard	Bal	0.02max	1.0max	4.0-7.0	0.04max	0.03max	0.08max
Item	Cu	Co	Cr	Mo	V	W	Other
AWS Standard	0.50max	0.08max	14.5-16.5	15.0-17.0	0.35max	3.0-4.5	0.50max



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	275 - 450MPa	650 - 850MPa	30% - 50%

Welding Requirements.

1. The weld surface must be completely cleaned of impurities such as oil, rust, and scale.
2. During welding, keep the welding gun stable.
3. If it is gas shielded welding, prepare the appropriate shielding gas.

Characteristics:

1. AWS A5.14 ERNiCrMo - 14 mainly contains alloying elements such as nickel (Ni), chromium (Cr), and molybdenum (Mo).
2. Nickel is the main component, providing the alloy with good toughness and basic corrosion resistance.
3. AWS A5.14 ERNiCrMo - 14 has good toughness. It can maintain good toughness at different working temperatures, especially in low temperature environments, avoid brittle fracture, and ensure that the welded structure can work stably when subjected to impact or dynamic loads.

Application:

1. Applicable welding range: Applicable to tungsten inert gas shielded welding and metal arc gas shielded arc welding, can weld a variety of stainless steels and nickel alloys, and can be clad on the surface of some steel grades.
2. Alloy composition advantages: High alloy components improve corrosion resistance.
3. Corrosion resistance performance: AWS A5.14 ERNiCrMo-14 is resistant to corrosion by hydrochloric acid, sulfuric acid and other media, and is resistant to corrosion by various corrosive media such as intergranular corrosion.

Power polarity:DC-

Chemical composition.

Item	Ni	C	Mn	Fe	p	S	Al
AWS Standard	Bal	0.01max	1.0max	5.0max	0.02max	0.02max	0.5max
Item	Cu	Si	Ti	Cr	Mo	W	Other
AWS Standard	0.5max	0.08max	0.25max	19.0-23.0	15.0-17.0	3.0-4.4	0.50max



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	250 - 450MPa	600 - 800MPa	30% - 50%

Welding Requirements.

1. The weld surface must be completely cleaned of impurities such as oil, rust, and scale.
2. Strictly control the interpass temperature, generally recommended to maintain at 100-150°C.
3. After welding is completed, the slag and spatter on the weld surface should be cleaned in time.

Characteristics:

The weld metal of ERNiCrMo-3 after welding has obvious advantages. It has high strength in a wide temperature range and excellent resistance to pitting and crevice corrosion. It performs outstandingly in high temperature, high pressure and corrosive media. It has excellent high-temperature mechanical properties, even up to 800 ° C, and is widely used in chemical, marine fields and various

Application:

1. Used for welding Inconel 625 (N06625) alloy, 20 alloy, 825, 25-6Mo, 9% Ni steel or other molybdenum-containing steels.
2. Can be used for welding joints between different materials, such as welding between nickel-chromium-molybdenum alloy and stainless steel, carbon steel or low alloy steel.
3. Can be used for corrosion-resistant surfacing on the surface of materials.

Power polarity:DC-

Chemical composition.



Item	Ni+Co	C	Mn	Fe	S	Cu	Si
AWS Standard	58.0min	0.10max	0.50max	5.0max	0.015max	0.50max	0.50max
Item	Al	Cr	Ti	Nb+Ta	P	Mo	Other
AWS Standard	0.40max	20.0-23.0	0.40max	3.15-4.15	0.02max	8.0-10.0	0.50max

Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≥60,000	≥110,000	≥30%

Welding Requirements.

1. The welding area must be completely cleaned of surface impurities such as oil, rust, and moisture.
2. When welding, use a small wire energy and a lower interpass temperature is recommended.
3. The purity of the argon gas used must be above 99.99% and the gas flow control must be appropriate

Characteristics:

ERNiCoCrMo-1 is a nickel-chromium-cobalt-molybdenum alloy gas shielded welding wire. The molten metal has very good high temperature strength, corrosion resistance and metallurgical stability.

Application:

It is used for welding low carbon nickel-cobalt-chromium-molybdenum alloys and steel surface surfacing. It can also be used for welding dissimilar high temperature alloys and cast high nickel alloys.

Power polarity:DC-

Chemical composition.



Item	C	Mn	Si	S	P	Fe	Ni
AWS Standard	0.05~0.15	≤1.0	≤1.0	≤0.015	≤0.020	≤3.0	≥44.0
Item	Cr	Mo	Co	Al	Ti	Cu	
AWS Standard	20.0~24.0	8.0~10.0	10.0~15.0	0.8~1.5	≤0.6	≤0.5	

Welding Requirements.

1. Use Ar or Ar +He mixed gas as the shielding gas, with a gas flow rate of 25~30L/min;
2. Before welding, the oxides and impurities on the welding edge of the workpiece and the surface of the welding wire must be removed;
3. When welding outdoors, when the wind speed is greater than 1.5m/s, windproof measures should be taken to prevent the formation of pores.

Characteristics:

ERNiCrMo-7 is a nickel-chromium-molybdenum alloy gas shielded welding wire. The deposited metal has good crack resistance and good corrosion resistance in HF, HCL, and other corrosive media with strong redox.

Application:

It is used for welding nickel-based, iron-nickel-based alloys and stainless steel, etc. It can also be used for welding and surfacing of dissimilar materials such as nickel-based and iron-nickel-based or stainless steel, nickel-based and stainless steel and low-alloy steel.

Power polarity:DC-

Chemical composition.

Item	C	Mn	Si	S	P	Fe	Ni
AWS Standard	≤0.01	≤1.0	≤0.08	≤0.015	≤0.020	≤3.0	≥56.0
Item	Cr	Mo	W	Ti	Co	Cu	
AWS Standard	14.0~18.0	14.0~18.0	≤0.5	≤0.7	≤2.0	≤0.5	



Welding Requirements.

1. Use Ar or Ar +He mixed gas as the shielding gas, with a gas flow rate of 25~30L/min;
2. Before welding, the oxides and impurities on the welding edge of the workpiece and the surface of the welding wire must be removed;
3. When welding outdoors, when the wind speed is greater than 1.5m/s, windproof measures should be taken to prevent the formation of pores.

Characteristics:

- 1.ERNiCrMo-8 welding wire has excellent corrosion resistance, especially in environments containing chloride ions, and can effectively resist pitting and crevice corrosion. Its high molybdenum content further improves the corrosion resistance in fluorine-containing acidic environments.
- 2.ERNiCrMo-8 welding wire has excellent welding process, stable arc, beautiful shape, less spatter, and is suitable for a variety of welding processes.
- 3.ERNiCrMo-8 welding wire has high yield strength and tensile strength, and can withstand large mechanical loads.

Application:

1. Suitable for the manufacture of pressure vessels with an operating temperature range of -196 °C to +650 °C , and anti-oxidation peeling within +1200 °C (sulfur-free conditions).
2. Suitable for welding of nickel-based alloys, high-temperature creep-resistant steels, heat-resistant steels and low-temperature steels, dissimilar steels, etc.
3. Widely used in industries such as petrochemicals, metallurgy, atomic energy, marine development, aviation, and aerospace to solve engineering corrosion problems that cannot be solved by general stainless steel and other metal and non-metal materials.

Power polarity:DC+

Chemical composition.

Item	C	Cr	Ni	Mo	W	Fe	Mn	Si
AWS Standard	0.07max	19.0-21.0	58.0-62.0	2.0-3.0	3.0-4.5	3,0max	1.0max	0.5max
Item	Cu	P	S					
AWS Standard	0.5max	0.02max	0.015max					



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≥554 MPa	≥499 MPa	≥44%

Welding Requirements.

1. When welding, use low wire energy and it is recommended to use a lower interpass temperature.
2. The arc length is generally controlled at around 4-6 mm.
3. When the wind speed is greater than 0.5 m/s, wind protection measures should be taken.

Characteristics:

- 1.ERNiCrMo-9 welding wire has excellent corrosion resistance, especially in environments containing chloride ions, and can effectively resist pitting and crevice corrosion. Its high molybdenum content further improves the corrosion resistance in fluorine-containing acidic environments.
- 2.ERNiCrMo-9 welding wire has excellent welding process, stable arc, beautiful shape, less spatter, and is suitable for a variety of welding processes.
- 3.ERNiCrMo-9 welding wire has high yield strength and tensile strength, and can withstand large mechanical loads.

Application:

1. Suitable for the manufacture of pressure vessels with an operating temperature range of -196 °C to +650 °C , and anti-oxidation peeling within +1200 °C (sulfur-free conditions).
2. Suitable for welding of nickel-based alloys, high-temperature creep-resistant steels, heat-resistant steels and low-temperature steels, dissimilar steels, etc.
3. Widely used in industries such as petrochemicals, metallurgy, atomic energy, marine development, aviation, and aerospace to solve engineering corrosion problems that cannot be solved by general stainless steel and other metal and non-metal materials.

Power polarity:DC+

Chemical composition.

Item	C	Cr	Ni	Mo	Al	Cu	Nb+Ta	Ti	V
AWS Standard	0.015max	21.0-23.5	Bal	6.0-8.0	0.80-1.50	1.5max	0.5max	0.6max	-
Item	Fe	N	Co	Pb	W	P	S	Other	
AWS Standard	18.0-21.0	-	5.0max	-	1.5max	0.04max	0.03max	0.50max	



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≥554 MPa	≥758 MPa	≥21%

Welding Requirements.

1. Heat treatment temperature: 1141°C - 1252°C
2. Arc length: generally controlled at around 4-6 mm.
3. When welding, use small wire energy and it is recommended to use a lower interpass temperature.

Characteristics:

- 1.ERNiCrMo-11 welding wire has excellent corrosion resistance, especially in environments containing chloride ions, and can effectively resist pitting and crevice corrosion. Its high molybdenum content further improves the corrosion resistance in fluorine-containing acidic environments.
- 2.ERNiCrMo-11 welding wire has excellent welding process, stable arc, beautiful shape, less spatter, and is suitable for a variety of welding processes.
- 3.ERNiCrMo-11 welding wire has high yield strength and tensile strength, and can withstand large mechanical loads

Application:

1. Suitable for the manufacture of pressure vessels with an operating temperature range of -196 °C to +650 °C , and anti-oxidation peeling within +1200 °C (sulfur-free conditions).
2. Suitable for welding of nickel-based alloys, high-temperature creep-resistant steels, heat-resistant steels and low-temperature steels, dissimilar steels, etc.
3. Widely used in industries such as petrochemicals, metallurgy, atomic energy, marine development, aviation, and aerospace to solve engineering corrosion problems that cannot be solved by general stainless steel and other metal and non-metal materials

Power polarity:DC+

Chemical composition.

Item	C	Cr	Ni	Mo	W	Fe	Mn	Si
AWS Standard	0.07max	19.0-21.0	58.0-62.0	2.0-3.0	3.0-4.5	3,0max	1.0max	0.5max
Item	Cu	P	S					
AWS Standard	0.5max	0.02max	0.015max					



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≥527 MPa	≥678 MPa	≥11%

Welding Requirements.

1. The welding area must be completely cleaned of surface impurities such as oil, rust, and moisture.
2. It is recommended to use high-purity argon (99.99% or more) as the shielding gas, and the shielding gas flow rate should be 15-25 L/min.
3. When the wind speed is greater than 0.5 m/s, windproof measures should be adopted.

Characteristics:

- 1.ERNiCrMo-16 welding wire has excellent corrosion resistance, especially in environments containing chloride ions, and can effectively resist pitting and crevice corrosion.
- 2.ERNiCrMo-16 welding wire has excellent welding process, stable arc, beautiful shape, less spatter, and is suitable for a variety of welding processes.
- 3.ERNiCrMo-16 welding wire has high yield strength and tensile strength, and can withstand large mechanical loads.

Application:

1. Applied to high temperature heat exchangers and valves.
2. Applicable to furnace tubes and radiant heat pipes in the petrochemical industry.
3. Applicable to gas turbines.
4. Applicable to components affected by high temperatures in the chemical industry.
5. Applicable to components in power plants

Power polarity:DC+

Chemical composition.

Item	C	Cr	Ni	Mo	W	Fe	Mn	Si
AWS Standard	0.07max	19.0-21.0	58.0-62.0	2.0-3.0	3.0-4.5	3,0max	1.0max	0.5max
Item	Cu	P	S					
AWS Standard	0.5max	0.02max	0.015max					



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≥595 MPa	≥663 MPa	≥32%

Welding Requirements.

1. It is recommended to use high-purity argon (99.99% or more) as the shielding gas, and the shielding gas flow rate is preferably 15-25 L/min.
2. When welding, use a small wire energy and a lower interpass temperature.
3. The welding area must be thoroughly cleaned of surface impurities such as oil, rust, and moisture.

Characteristics:

ERNiCrMo-17 is a nickel-based alloy welding wire, mainly used for welding nickel-based alloys and stainless steel and other materials

Application:

1. Mainly used for welding nickel-based alloys and stainless steel, such as Hastelloy C-2000, etc.
2. ERNiCrMo-17 has outstanding resistance to seawater erosion, so it is widely used in maritime operations and desalination.

Power polarity:DC+

Chemical composition.

Item	C	Mn	P	S	Si	Ni	Cr
AWS Standard	0.01max	0.50max	0.025max	0.01max	0.08max	-	22.0-24.0
Item	Mo	Cu	Al	Fe	Co		
AWS Standard	15.0-17.0	1.3-1.9	0.50max	3.00max	2.00max		



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≥419 MPa	≥722 MPa	≥41%

Welding Requirements.

1. Preheat and interpass temperatures should be no less than 300°F (149°C).
2. Post-weld heat treatment temperature should not exceed 1150°F (621°C). Higher temperatures may cause hardening.
3. The weld must be thoroughly cleaned of surface impurities such as oil, rust, and moisture.

Characteristics:

- 1.ERNiCrMo-18 welding wire has excellent corrosion resistance, especially in environments containing chloride ions, and can effectively resist pitting and crevice corrosion. Its high molybdenum content further improves the corrosion resistance in fluorine-containing acidic environments.
- 2.ERNiCrMo-18 welding wire has excellent welding process, stable arc, beautiful shape, less spatter, and is suitable for a variety of welding

Application:

1. Mainly used for welding Hastelloy C-2000 alloy and other similar nickel-based alloys
2. Can be used for surface surfacing of carbon steel to extend the service life of components
3. Suitable for welding between stainless steel and carbon steel or low alloy steel

Power polarity:DC+

Chemical composition.

Item	C	Cr	Ni	Mo	Nb	Fe	Si
AWS Standard	≤0.04	19.0-21.0	16.0-18.0	15.0-17.0	2.0-3.0	Bal	≤0.50
Item	Mn	P	S	Cu			
AWS Standard	≤0.50	≤0.02	≤0.015	≤0.50			



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≈ 820MPa	≈ 635MPa	≥20%

Welding Requirements.

1. Preheat and interpass temperatures should not be less than 300°F (149°C)
2. Post-weld heat treatment temperature should not exceed 1150°F (621°C), higher temperatures may cause hardening
3. Wind protection measures should be taken when wind speed is greater than 0.5 m/s

Characteristics:

- 1.ERNiCrMo-20 welding wire has excellent corrosion resistance, especially in environments containing chloride ions, and can effectively resist pitting and crevice corrosion. Its high molybdenum content further improves the corrosion resistance in fluorine-containing acidic environments
- 2.ERNiCrMo-20 welding wire has excellent welding process, stable arc, beautiful shape, less spatter, and is suitable for a variety of welding processes
- 3.ERNiCrMo-20 welding wire has high yield strength (about 635 MPa) and tensile strength (about 820 MPa), and can withstand large mechanical loads.

Application:

1. Mainly used for welding Hastelloy C-2000 alloy and other similar nickel-based alloys
2. Can be used for surface surfacing of carbon steel to extend the service life of components

Power polarity:DC+

Chemical composition.

Item	C	Cr	Ni	Mo	Cu	Mn	Nb
AWS Standard	0.07max	19.0-21.0	32-38	2.0-3.0	3.0-4.0	2.0max	1.0max
Item	Si	P	S	Fe			
AWS Standard	1.0max	0.045max	0.035max	Bal			



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≥379 MPa	≥758 MPa	≥30%

Welding Requirements.

1. The welding area must be completely cleaned of surface impurities such as oil, rust, and moisture.
2. The arc length is generally controlled at around 4-6 mm.
3. The amount of welding line energy directly affects the mechanical properties and crack resistance of the weld metal, and should be given more attention.

Characteristics:

- 1.ERNiCrWMo-1 welding wire has excellent high temperature corrosion resistance, such as oxidation resistance and carburization resistance. This weld metal has good metallurgical stability and strength when exposed to high temperatures of 1100° C (2012° F) for short and long periods of time.
- 2.ERNiCrWMo-1 welding wire has excellent welding process, stable arc, beautiful shape, less spatter, and is suitable for a variety of welding processes.
- 3.ERNiCrWMo-1 welding wire has high yield strength and tensile strength, and can withstand large mechanical loads.

Application:

1. Applied to high temperature heat exchangers and valves.
2. Applicable to furnace tubes and radiant heat pipes in the petrochemical industry.
3. Applicable to components subject to high temperatures in the chemical industry.
4. Applicable to components in power plants.

Power polarity:DC+

Chemical composition.

Item	C	Cr	Ni	Mo	W	Co	Fe	Mn
AWS Standard	0.15max	20.0-24.0	62.0-69.0	1.00-3.00	13.0-15.0	5.0max	3.0max	0.30-1.00
Item	Si	Al	Cu	P	S	B	Other	
AWS Standard	0.24-0.75	0.20-0.50	0.50max	0.03max	0.015max	0.003max	0.50max	



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	≥595 MPa	≥663 MPa	≥32%

Welding Requirements.

1. The welding area must be completely cleaned of surface impurities such as oil, rust, and moisture.
2. The arc length is generally controlled at around 4-6 mm.
3. The amount of welding line energy directly affects the mechanical properties and crack resistance of the weld metal, and should be given more attention.

Characteristics:

1. Nickel-chromium-molybdenum alloy argon arc welding wire, nominal composition is 43%Ni-30%Cr-15%Fe-5%Mo-2%Co-3%W-2%Cu
2. The deposited metal has good mechanical properties and good corrosion resistance
3. Stable arc, beautiful shape, good molten iron fluidity, excellent welding process performance

Application:

It is suitable for welding of nickel-chromium-molybdenum alloys, such as ASTM B564, B575, B619 and UNS No. N060559, and can also be used for welding and surface surfacing of nickel-based alloys and stainless steel dissimilar materials.

Power polarity:DC-

Chemical composition.

Item	C	Mn	Si	Cr	Ni	Mo	Fe	P	S
AWS Standard	0.01	0.5	0.1	22.0-24.0	Rem	15.0-16.5	1.5	0.015	0.005



Mechanical properties.

Mechanical properties	Yield strength MPa	Tensile strength MPa	Elongation %
AWS Standard	-	760	38

Welding Requirements.

1. Refer to the general welding requirements for solid welding wire for P309 nickel-based alloy;
2. Shielding gas: pure Ar;
3. Preheating and interpass temperature: $\leq 100^{\circ}\text{C}$, and minimize heat input.