

Standard: AWS A 5.9 YB/T5092	Chemical Composition %								
	C	Mn	Si	Cr	Ni	P	S	Mo	Cu
Grade ER309	≤0.12	1.0 – 2.5	0.3 – 0.65	23 – 25	12 – 14	≤0.03	≤0.03	≤0.75	≤0.75
Type	Spool (MIG)				Tube (TIG)				
Specification (MM)	0.8、 0.9、 1.0、 1.2、 1.6、 2.0				1.6、 2.0、 2.4、 3.2、 4.0、 5.0				
Package	S100/1kg S200/5kg S270,S300/15kg-20kg				5kg/box 10kg/box length :1000MM				
Mechanical Properties	Tensile Strength Mpa				Elongation after fracture A (%)				
	≥ 530				≥ 30				
Diameter (MM)	0.8	1.0	1.2	1.6	2.0	2.5	3.2		
Current (A)	70 ~ 150	100 ~ 200	140 ~ 220	50 ~ 100	100 ~ 200	200 ~ 300	300 ~ 400		
Application	ER309, also known as H12Cr24Ni13Si. is used to weld the same type of stainless steel, stainless steel lining, dissimilar steel Cr19Ni10 and low carbon steel) and high chromium steel, high manganese steel, etc. The weld metal has good mechanical properties, crack resistance and oxidation resistance, as well as excellent heat and corrosion resistance.								
	It can be used in 22Cr-12Ni steel welding, good heat resistance and corrosion resistance, stable arc, beautiful weld.								
Notice	1. Oil, dirt and rust on the welding wire surface should be removed before welding. Surface impurities such as oil, rust and water should be thoroughly removed in the welding place, so as to prevent blowhole, crack and so on during welding. The surface of the groove and its surroundings should be polished with metallic gloss.								
	2. In order to obtain good mechanical properties of welding seam, suggest protect gas Ar+2%O2 and shield gas flow rate 20-25 L/min for MIG welding. For TIG welding,suggest protect gas pure Ar and shield gas flow rate 8-15 L/min ,Arc length 1~3 mm; Length of the tungsten pole is about 3~5 mm; wind speed limit ≤ 1.0 m/s, argon protection at the back of welding area .								
	3. In the welding process, the welding line energy directly affects the mechanical properties and crack resistance of weld metal, and should be paid more attention to.								
	4. The above welding methods, conditions and specifications are for reference only. Users should evaluate the welding process according to their own welding characteristics before using the welding wire for the formal product welding.								