

Applications

TIG welding of low carbon 22%Cr-12%Ni steel and a dissimilar metals.
Clad side of 18%Cr-8%Ni clad steel.

Characteristics on Usage

ST-309L is a filler rod for TIG welding with pure Ar gas.
As the weld metal contains ferrite, its crack resistibility is excellent.
Furthermore, resistance to corrosion and heat is extremely good.

Typical Chemical Composition of Wire (%)

C	Si	Mn	Cr	Ni
0.03	0.40	1.74	24.2	12.6

Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in ²)	EL (%)	CVN-Impact Value J(ft.lbs) 0°C (32°F)
600 (87,000)	38	150 (110)

Typical Welding Conditions (DC-)

Size mm(in)	Currents A	Gas Flow (ℓ /min.)	Shielding gas
1.2 (.045) ~ 2.0 (5/64)	50 ~ 100	25	Ar
1.6 (1/16) ~ 3.2 (1/8)	100 ~ 200		
2.4 (3/32) ~ 3.2 (1/8)	200 ~ 300		
3.2 (1/8)	300 ~ 400		

Approval

ABS, DNV, LR, NK, BV, CCS