

Applications

TIG Welding of 29%Cr-9%Ni stainless steel and dissimilar metals.

Characteristics on Usage

Due to high Cr content, it has excellent resistance to corrosion.

This wire contains a high ferrite level in its austenitic structure thus providing better crack resistance.

ST-312 is suitable for the welding of dissimilar metal such as stainless steels, mild steels and low alloy.

Typical Chemical Composition of Wire (%)

C	Si	Mn	Cr	Ni
0.10	0.38	1.68	30.0	8.8

Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in ²)	EL (%)
770 (111,600)	27

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		