

Applications

TIG Welding of 13%Cr stainless steel (STS 403, STS 410)

Characteristics on Usage

Structure of all-weld metal is martensite having magnetic properties thus providing high hardness, good anti-abrasive property. Bead appearance and weldability are good.

Due to high hardness of all-weld metal and excellent resistance to corrosion and abrasion, it can be used to hardfacing of carbon steels and 13%Cr stainless steels application.

Typical Chemical Composition of Wire (%)

C	Si	Mn	Cr	Ni
0.10	0.38	0.34	12.0	0.17

Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in ²)	EL (%)	CVN-Impact Value J(ft.lbs) 0°C (32°F)
530 (76,800)	37	-

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		