HYUNDAI WELDING

Rev. 01

ST-310

2020.05

HYUNDAI WELDING CO., LTD.

ST-310

❖ Specification

AWS A5.9	ER310
JIS	Z3321 YS310
EN	ISO 14343-A W 25 20

❖ Applications

TIG welding of 25%Cr-20%Ni steel.

❖ Characteristics on Usage

ST-310 is a filler rod for TIG welding with pure Ar gas.
The structure of the weld metal is all austenite.
Resistance to corrosion and heat of weld metal is excellent.
Elongation of weld metal is extremely good.

❖ Note on Usage

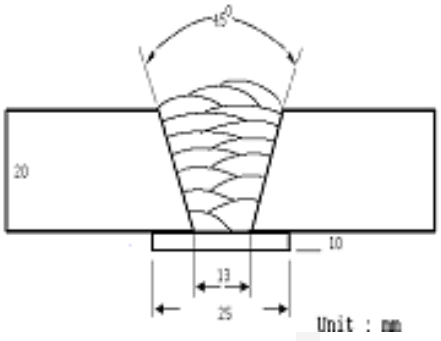
Use 100% Ar

❖ Packing

Dia.	1.6mm (1/16in)	2.0mm (5/64in)	2.4mm (3/32in)	2.6mm (0.10in)	3.2mm (1/8in)
TIG	5kg (11lbs)				

Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions



[Joint Preparation & Layer Details]

Diameter(mm)	:	2.4mm
Shielding Gas	:	100%Ar
Flow Rate(ℓ/min.)	:	20~25
Amp./ Volt.	:	160~240 /
Pre-Heat(℃)	:	R.T.
Interpass Temp.(℃)	:	150 ± 15
Polarity	:	DC(-)

❖ Mechanical Properties of All weld metal

Consumable	Tensile Test		CVN Impact test Joule (ft·lbs)	
	T.S. MPa (ksi)	EL. (%)	-60℃ (-76°F)	-196℃ (-320.8°F)
ST-310	561 (82)	46	136 (101)	103 (76)

❖ Chemical Analysis of the wire(wt%)

Consumable	Chemical Composition (wt%)				
	C	Si	Mn	Ni	Cr
ST-310	0.09	0.35	1.90	20.9	26.8
AWS A5.9 ER310	0.08 ~0.15	0.30 ~0.65	1.0 ~2.5	20.0 ~22.5	25.0 ~28.0

❖ Chemical Analysis of All weld metal(wt%)

Consumable	Chemical Composition (wt%)				
	C	Si	Mn	Ni	Cr
ST-310	0.094	0.42	1.59	19.38	24.45