

Applications

- ① Used for welding of 22%Cr-5%Ni-2%Mo-0.15%N STS steel.
- ② Used for welding of offshore oil/gas, chemical and petrochemical process industries, e.g. pipework systems, flowlines, risers, manifolds etc.

Characteristics on Usage

- ① Duplex stainless steel pipes, plates, fittings and forgings have an approximate 50:50 microstructure of austenite with a ferrite matrix.
- ② Preheat not generally required. Interpass temperature 100 ~ 150°C max, heat input in the range 0.5 ~ 1.5KJ/min - depending on material thickness.
- ③ Good general corrosion resistance in a range of environments.
- ④ High resistance to chloride induced stress corrosion cracking (CSCC).

Typical Chemical Composition of Wire (%)

C	Si	Mn	Cr	Ni	Mo
0.01	0.41	1.70	23.4	8.9	3.2

Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in ²)	EL (%)	Temp. °C (°F)	CVN-Impact Value J (ft · lbs)	PREN
810 (116,700)	27	-20 (-4)	195 (144)	35

Ferrite Contents of All-Weld Metal(Shielding gas : 100%Ar)

	WRC-1992 (FN)	Shaeffler Diagram(%)
As welded	66	55

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

LR, DNV, ABS