

Applications

MIG welding of 18%Cr-12%Ni-2%Mo stainless steel for chemical industries and nuclear reactors.

Characteristics on Usage

Though SM-316 is austenitic type stainless steel wire, the weld metal contains ferrite and resistance to crack is quite good.

The usability, such as arc stability and assimilability of welds to base metal is good.

Resistance to corrosion and heat is quite good.

Typical Chemical Composition of Wire (%)

C	Si	Mn	Cr	Ni	Mo
0.06	0.40	1.71	19.4	12.6	2.5

Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in ²)	EL (%)
580 (84,200)	39

Typical Welding Conditions (DC+)

Size mm(in)	A	V	Speed (cm/min.)	Gas Flow (ℓ /min.)	Remarks
1.2 (.045)	250	26	30	25	Shielding gas
1.6 (1/16)	300	29	35	25	100%Ar or Ar+2%O ₂