

## Applications

- ① Used for welding of austenite type STS 304 and high Mn steels.
- ② Used for joining dissimilar combinations of STS steels and carbon steels.

## Characteristics on Usage

- ① Though SM-307Si is a austenite type stainless wire, the weld metal contains ferrite and resistance to crack is extremely good. The usability, such as arc stability and assimilability of welds to base metal is extremely good.
- ② Resistance to corrosion and the mechanical properties of the weld metal are good.

### Typical Chemical Composition of Wire (%)

C	Si	Mn	Cr	Ni	Mo
0.08	0.87	7.17	19.6	9.3	0.12

### Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp. °C (°F)	CVN-Impact Value J (ft · lbs)	PWHT
610 (88,600)	42	0 (32) -20 (-4)	83 (63) 59 (43)	690°C × 1Hr

### Typical Welding Conditions (Pulse)

Dia (mm)	Amp (A)	Vol (V)	Cpm (cm/min)	Gas Flow (ℓ /min)	Shielding Gas
1.2	250	26	30	25	100% Ar or
1.6	300	29	35		Ar +2%O <sub>2</sub>