

## Applications

MIG welding of 22%Cr-12%Ni steel, heat resistant cast steel clad side of 18%Cr-8%Ni clad steel and stainless steel to Cr-Mo steel or carbon steel.

## Characteristics on Usage

SM-309LSi is an austenitic type stainless steel wire, the weld metal contains ferrite and crack sensitivity is extremely good. The Usability, such as arc stability and assimilability of welds to base metal is extremely excellent. The high silicon content of wire improves the welding properties, such as arc stability and bead wetting. Resistance to corrosion and mechanical properties of weld metal are great.

### Typical Chemical Composition of Wire (%)

| C     | Si   | Mn   | Cr    | Ni    | Mo  |
|-------|------|------|-------|-------|-----|
| 0.022 | 0.79 | 1.61 | 24.11 | 13.97 | 0.1 |

### Typical Mechanical Properties of All-Weld Metal

| TS<br>MPa(lbs/in <sup>2</sup> ) | EL<br>(%) |
|---------------------------------|-----------|
| 571 (82,800)                    | 40.2      |

### Typical Welding Conditions (DC+)

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