



## 316LSi

**DESCRIPTION:** Weldcote Metals 316LSi is similar to 316L, with higher silicon content for optimum ease in welding and smooth bead appearance. Higher productivity could be realized in MIG welding.

**APPROVALS:** Manufactured under Quality System approved by ASME, IS09001. Meets AWS 5.9 Class ER316LSi. Approved by Canadian Welding Bureau.

### CHEMICAL COMPOSITION

Carbon	0.030
Manganese	1.000-2.500
Silicon	0.650-1.000
Chromium	18.000-20.000
Nickel	11.000-14.000
Molybdenum	2.500-3.000
Sulfur	0.020
Phosphorus	0.030
Copper	0.300

### MECHANICAL PROPERTIES

<b>Tensile Strength</b>	
86,500 PSI	600 MPA
<b>Yield Strength</b>	
58,500 PSI	400 MPA
<b>Elongation</b>	
36%	

### WELDING PARAMETERS

- a) **MIG WELDING:** Direct current; Electrode +Ve  
 Shielding Gas 98/99% Argon + 2/1% Oxygen  
 97% Argon + 3% CO<sub>2</sub>  
 Gas Flow 30 to 50 CFH  
 Voltage 29 to 33  
 Amperage 160/180 for .035" (0.9mm)  
 180/220 for .045" (1.14mm)  
 210/250 for .062" (1.6mm)
- b) **TIG WELDING:** Direct Current; Electrode -Ve  
 Shielding Gas 100% Argon  
 Gas Flow 30 to 40 CFH
- c) **SUB-ARC WELDING:** Direct Current; Electrode + Ve  
 Voltage 29 to 32  
 Amperage 300 to 350 for 3/32" (2.5mm)  
 400 to 550 for 1/8" (3.14mm)  
 500 to 650 for 5/32" (4.0mm)  
 Speed of Welding 20 to 30 IPM (500 to 750mm)/min.

Weldcote Metals believes this data to be accurate and to reflect qualified expert opinion regarding current research. However, Weldcote Metals can not make any expressed or implied warranty as to this information.